STATE OF GEORGIA
TIER 2 TMDL IMPLEMENTATION PLAN REVISION 1
Silver Creek
Coosa River Basin
April 28, 2006

City of Rome, Floyd County, Bartow County

I. INTRODUCTION

Total Maximum Daily Load (TMDL) Implementation Plans are platforms for evaluating and tracking water quality protection and restoration. These plans have been designed to accommodate continual updates and revisions as new conditions and information warrant. In addition, field verification of watershed characteristics and listing data has been built into the preparation of the plans. The overall goal of the plans is to define a set of actions that will help achieve water quality standards in the state of Georgia.

This implementation plan addresses the general characteristics of the watershed, the sources of pollution, stakeholders and public involvement, and education/outreach activities. In addition, the plan describes regulatory and voluntary practices/control actions (*management measures*) to reduce pollutants, milestone schedules to show the development of the management measures (*measurable milestones*), and a monitoring plan to determine the efficiency of the management measures.

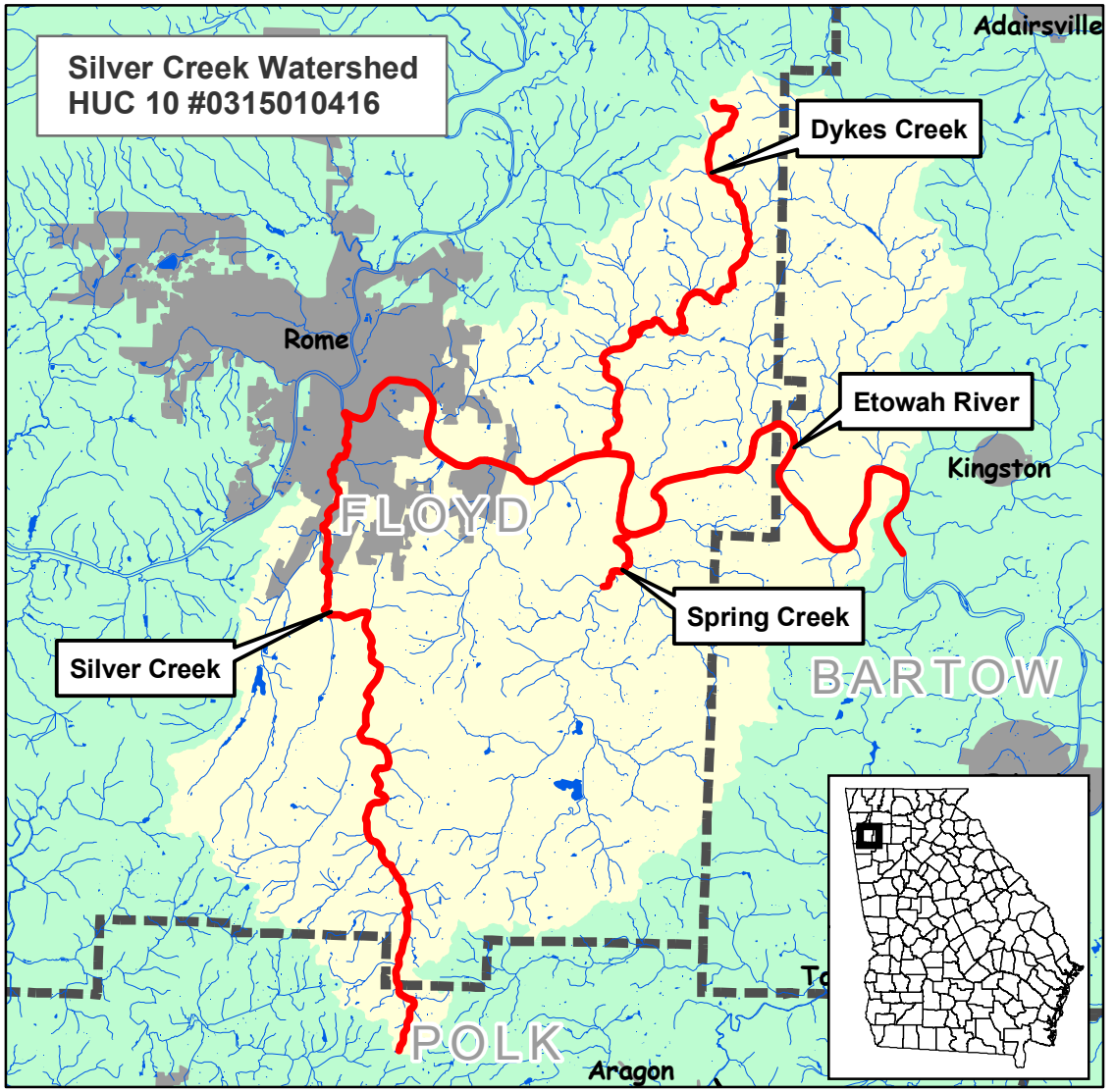


Table 1. IMPAIRMENTS

IMPAIRED STREAM SEGMENT	IMPAIRED SEGMENT LOCATION	IMPAIRMENT	TMDL ID
Dykes Creek	Bartow and Floyd Counties (EPA)	Biota (Sediment) / Habitat	CSA0000027
Etowah River	US Hwy 411 to Coosa River	Fecal Coliform Bacteria	CSA0000082
Silver Creek	Headwaters to Etowah Rv., Rome (Floyd Co.)	Fecal Coliform Bacteria	CSA0000073
Spring Creek	Etowah River Tributary	Fecal Coliform Bacteria	CSA0000065
Etowah River *	US Hwy 411 to Coosa River	CFB (PCBs)	CSA0000043
Silver Creek *	Headwaters to Etowah Rv., Rome (Floyd Co.)	CFB (PCBs)	CSA0000033
Spring Creek *	Etowah River Tributary	CFB (PCBs)	CSA0000024

Toms Creek *	Etowah River Tributary	CFB (PCBs)	CSA0000036
Etowah River *	Hwy 411 to Coosa River	FCG (PCBs)	CSA0000087
Spring Creek *	Etowah River Tributary	Mercury	CSA0000084

* Plan will be written by GA EPD

II. GENERAL INFORMATION ABOUT THE WATERSHED

Write a narrative describing the watershed, HUC 10 #0315010416. Include an updated overview of watershed characteristics. Identify new conditions and verify or correct information in the TMDL document using the most current data. Include the size and location of the watershed, political jurisdictions, and physical features which could influence water quality. Describe the source and date of the latest land cover/use for the watershed. Describe and quantify major land uses and activities which could influence water quality. See the instructions for more information on what to include.

Dykes Creek lies northwest of Atlanta, Georgia in Floyd County and drains an area east of the City of Rome and discharges into the Etowah River. Dykes Creek forms from Hall's Lake and other tributaries from north Floyd County. It is a trout stream which is stocked 4 times each stocking season by the GADNR Wildlife Resources Division. The upstream reaches of the creek run dry at times. Creek was observed to run dry between Ward Mountain Road and Wayside Road. Area is mostly pastureland and rural residential with some forested area, according to the field survey.

Field survey results indicated that at Highway 293 near Dykes Creek's confluence with the Etowah, water appearance was clear and flow was good. Low intensity residential development and cattle pastures were seen. Further downstream banks became shallow; a good tree buffer was seen. Houses and pasture land were seen in the watershed. A tributary to the creek headwaters was partially blocked in areas by grass and weeds. Upstream, water appearance was milky and flow was small. Portions of buffer are mown upstream of Morrison Campground Road.

Sampling data for Dykes Creek was collected by EPA in 2001 at SR 293.

Land use is variable with the presence of forests, pasture, urban, industrial and agriculture. Total watershed acreage is 9,516 acres. Of that, 89% is forest at 8,449 acres; 10% is agriculture, at 974 acres; and the following each form less than 1%: Barren land, urban land, water, and commercial/industrial (EPA, 2004). The data on land use are taken from EPA publication *Total Maximum Daily Load (TMDL) for Sediment in Tallapoosa and Coosa River Basins* (2004). This is the most recent land use data available for this watershed. This data has been verified by field survey and stakeholder input and is accurate.

Etowah River begins in the Blue Ridge Mountains near Dahlonega, Georgia and flows about 150 miles in a southwesterly direction to its confluence with the Oostanaula River at Rome, Georgia. According to the Source Water Assessment Plan (CVRDC, 2003) the Etowah basin drains around 1860 sq. miles. In this area the river flows through the City of Rome and drains urban and residential areas as well as impervious surfaces. Surrounding areas outside the city limits are less developed and include low-intensity rural residential as well as pastureland, as seen in the field survey.

Sampling data for this segment of the Etowah was collected in 2001 at Turner McCall Bridge in Rome and on the Georgia Highway 1 Loop.

Field survey results indicated that at Veterans Parkway Bridge the River is very wide with a muddy appearance due to rains; banks were well buffered with row cropping past buffer zone. Further upstream, appearance was muddy and river was fast flowing. This area drains parking lots and impervious areas of town and has a decent tree buffer. Behind Riverbend Mall on Highway 27, new BMPs such as large rock and soil erosion matting were used to help stabilize the banks and promote grassing.

The Source Water Assessment Plan for the City of Rome's secondary water intake on the Etowah River off Spider Webb Drive was conducted in 2003. The intake feeds into the Blossom Hill Filtration Plant (Bruce Hamler Water Treatment Facility) and has a permitted capacity of 15.00 MGD (CVRDC, 2003). The City of Rome samples weekly at this intake and does daily raw water sampling for EPD reports.

Land use in this watershed is primarily forest at 347,738 acres or 73.4%; secondarily pasture/hay at 52,847 acres or 11.2% of the total; 29,608 acres are in row crops at 6.3%; 16,580 acres are in low intensity residential at 3.5%; 8,102 acres are in transitional use at 1.7%; 5,432 acres are in high intensity residential at 1.1% and the following uses each form one percent or less of the total: high intensity commercial/industrial/transportation, open water, other grasses, woody wetlands, quarries/strip mines/gravel pits, emergent herbaceous wetlands, and bare rock, sand, and clay (EPD, 2004). The data on land use are taken from EPD publication *Total Maximum Daily Load Evaluation for Fifty-Eight Stream Segments in the Coosa River Basin for Fecal Coliform* (2004). This is the most recent land use data available for this watershed. Field survey and stakeholder input were used to verify land use data.

Silver Creek headwaters in southeastern Floyd County near the Polk County line just west of State Route 101 and drains an area south of the City of Rome. The creek flows north parallel to the Southern/CSX Railroad through steep ridges to just south of Lindale where the floodplain widens. It flows past the Old Lindale Mill which closed in 2001. Silver Creek enters the City of Rome, west of Saddle Mountain and flows into the Etowah River near East 4th Avenue (now referred to as the Heritage Riverway Trail-Robert Moore Path).

The field survey indicated that outside Rome city limits, water appeared generally clear, with a variable tree and bush buffer and good bank structure. Silver Creek is a Rome Adopt-A-Stream project of the Pepperell Elementary supported by Lindale Manufacturing. Inside city limits, stream appearance was clear and had good flow; a small sediment bar was seen with grass and trees in the middle of the stream. Good vegetative and tree buffer was seen along the banks. Land uses included light industrial and commercial businesses; pastureland was also seen with hay growing and harvesting.

In '96 the City of Rome completed an assessment of the riparian corridor along Silver Creek. The intent was to identify physical improvements and programs necessary to restore trout habitat in a 1.7 mile segment of the stream adjacent to the Etowah. Assessment results indicated that riparian vegetative cover would be required to establish a stream temp suitable for trout. Rome worked with Trout Unlimited to revegetate the stream banks and to install rock weirs and other habitat enhancements. Silver Creek is a trout stream that is stocked 4 times each stocking season by the GADNR Wildlife Resources Division upstream of the urban areas. A previous NPDES discharger to Silver Creek, Lindale Manufacturing, permit # GA0000345, was closed in 2001.

In 2001 sampling was done at Crescent Avenue in Rome and sampling at the same site was scheduled for 2005.

Land use in this watershed is primarily forest at 19,903 acres or 74.5%; secondarily pasture/hay at 3,379 acres or 13.3% of the total; 1,110 acres are in high intensity residential at 4.3%; 957 acres are in row crops at 3.7%; 495 acres are in high intensity commercial/ industrial/transportation

use at 1.9%; 407 acres are in other grasses at 1.6% and the following uses each form one percent or less of the total: Open water and transitional (EPD, 2004). The data on land use are taken from EPD publication *Total Maximum Daily Load Evaluation for Fifty-Eight Stream Segments in the Coosa River Basin for Fecal Coliform* (2004). This is the most recent land use data available for this watershed. Field survey and stakeholder input were used to verify land use data. One change noted was an increase in residential development along Silver Creek near the City of Rome limits.

Spring Creek headwaters from a springhead near Wax Lake Road in Floyd County and flows northeasterly with several small tributaries feeding into it near Padgett's Lake and then enters into the Etowah River at Reynolds Bend. It drains an area of land southwest of the City of Rome, Georgia. It is a trout stream that is re-stocked 4 times each stocking season by the GADNR Wildlife Resources Division. Creek was observed to run dry upstream from Biddy Road.

Field survey of listed and upstream segments indicated that at Spring Creek's headwaters in southern Floyd County, it had a very small stream width and very low flow, intermittent. Further downstream there was no flow. Near Plemons Road another tributary merged and flow increased and cleared. At Pleasant Valley Road, stream was clear and wide with good flow. Buffer varied. Upstream debris or beaver activity was seen blocking part of the stream width. Several fish were seen, probably brown trout. Further upstream the creek bed was dry.

In 2001 the stream was sampled at Georgia Highway 20 near Rome and was scheduled to be sampled there again in 2005.

Land use in this watershed is primarily forest at 19,219 acres or 78.2%; secondarily pasture/hay at 4,044 acres or 16.5% of the total; 772 acres are in row crops at 3.1%; 263 acres are in transition at 1.1% and the following uses each form one percent or less of the total: Open water, high intensity commercial/ industrial/ transportation, high intensity residential, and other grasses (EPD, 2004). The data on land use are taken from EPD publication *Total Maximum Daily Load Evaluation for Fifty-Eight Stream Segments in the Coosa River Basin for Fecal Coliform* (2004). This is the most recent land use data available for this watershed. Field survey and stakeholder input were used to verify land use data. In this watershed land use is mostly forest, pastureland and low-intensity residential.

The sampling sites in this watershed included EPA listing of Dykes Creek, sampled at Georgia 293 in 2001, Silver Creek at Crescent Avenue in 2001, 2005; Spring Creek at Georgia Highway 20 and 411 (EPD) and USGS in 2001, 2005 at Georgia Highway 20 near Rome.

Relevant Watershed Planning and Management Activities

Erosion and Sedimentation

Rome-Floyd County and Bartow County are Local Issuing Authorities for E & S permitting of land-disturbing activities which are required to submit an NOI under the NPDES General Permit for Construction Activity.

The 2005 Unified Land Development Code of Rome-Floyd County includes the following ordinances: Section 6.13, E & S Control including a requirement for E and S Plans by developers; Section 6.14, Flood Damage Prevention (references the Flood Insurance Study of 2000); Section 3.3, Zoning regulations that include Planned Development zoning with a requirement for 20% of land within the residential development to be preserved as open space, excluding recreational space; Section 6.15, Stormwater Management including a stormwater management plan required of developers; Section 6.18 addressing tree planting requirements; and Section 6.19, addressing watershed and wetlands protection, including

setback restrictions and greenways of 100 feet on river corridors and 40 feet on tributaries including Silver Creek, Armuchee Creek, and Big Cedar Creek. E & S ordinances are administered by the Building Inspector.
Bartow County revised its E & S Control ordinance in 2002. It meets current Georgia E & S requirements. This ordinance applies to land disturbing activities on one acre of land or more. It is administered by the Bartow County Engineer through the Planning and Zoning Department. It is currently being reviewed and updated to include recommendations developed by a regional habitat conservation plan, the Etowah Habitat Conservation Plan. The Etowah Habitat Conservation Plan is a joint effort of municipalities, water authorities, developers, industry, the University of Georgia, Kennesaw State University, Georgia DNR, the US Fish and Wildlife Service, and others in the Etowah River watershed to protect threatened and endangered species of darter by developing a regional conservation plan. The plan allows included jurisdictions to be in compliance with the Federal Endangered Species Act and to obtain an Incidental Take Permit from the US Fish and Wildlife Service for development activities. Additionally the County is currently reviewing and updating all regulations and processes in its development code.

According to the Bartow County Watershed Assessment and Protection Plan, there are six standard operating procedures required of local governments for erosion and sediment control. These include a bonding program for workers, a requirement for semi-monthly reporting, weekly county inspections at each site, addition of erosion and sedimentation to the building inspectors' checklist, two required pre-construction meetings with site planner and crew, and lastly, the designation of an on-call erosion and sedimentation expert for the project. Some of these requirements may be revised in light of the recent erosion and sedimentation certification requirements.

House Bill 285 requires state certification in E & S Control for anyone involved in the following activities: land development, design, review, permitting, construction, monitoring, inspection, or any land-disturbing activity in Georgia. This certification is done through training by the Georgia Soil and Water Conservation Commission in consultation with Georgia Environmental Protection Division and the Stakeholder Advisory Board. The GSWCC also has updated requirements for E&SC plans to be submitted with each project. Certification requirements apply to all such persons in Bartow County. Certification is offered through the Rolling Hills Regional Conservation and Development Council (RC & D) for Bartow County. The County itself has held one class for Level 1A certification in December 2005; other certification level training classes are planned.

Georgia Forestry Commission Best Management Practices

The Forestry Commission has implemented best management practices on its lands to reduce sedimentation and erosion from silviculture practices. The Georgia Forestry Commission also provides education, technical and financial assistance through cost-share programs to private landowners especially in the Forestland Enhancement Program, a part of the 2002 Farm Bill. Ongoing Georgia Forestry Commission activities include the following programs.

- Federal Clean Water Act Section 404: GFC received referrals from EPA for compliance determinations in situations involving forestry. It requires normal ongoing agricultural and silvicultural practice to adhere to BMPs and 15 baseline provisions for road construction and maintenance in and across waters of the US including lakes, rivers, perennial and intermittent streams, wetlands, sloughs in order to qualify for the exemption from the permitting process.
- Georgia's Best Management Practices: A GFC program to inform landowners, foresters, timber buyers, loggers site preparation and reforestation contractors and others involved with silvicultural operations about commonsense, economical effective practices to minimize nonpoint source and thermal pollution. GFC encourages and monitors compliance and conducts a complaint resolution program.
- Georgia Forestry Commission Monthly BMP Assurance Examination: In an effort to document "reasonable assurance" that water quality will be proactively protected during regular ongoing silvicultural operations, the GCF will offer a monthly BMP assurance examination of active

sites. All active of ongoing sites will be identified either through monthly air patrol flights, courthouse records, riding the roads, notification or by landowners. Sites located within watersheds of specific biota (sediment) impaired streams will be given a higher priority to identify and conduct examinations.

- Memo to the Field: Application of BMPs to mechanical silvicultural site preparation activities for the establishment of pine plantations in the Southeast (Silviculture). Although overseen by the EPA/ US Army Corps of Engineers, cases are normally referred to GFC to make the initial determination. It identifies certain bottomland hardwood wetlands that should be subject to permitting if converting to pine plantations.

Department of Natural Resources Best Management Practices

The Department of Natural Resources, Wildlife Management Division provides outreach to landowners on prevention of soil erosion and sedimentation from land-disturbing activities contributing to habitat destruction, advises landowners of best management practices and habitat development for increased wildlife on their property, and encourages landowners to implement conservation practices on their lands through the NRCS.

2002 Farm Bill, US Department of Agriculture Natural Resources Conservation Service and Farm Service Agency

The Farm Security and Rural Investment Act of 2002 (Farm Bill 2002) funded conservation practices for farmers and ranchers with a focus on environmental issues by making existing programs simpler as well as funding new programs. The 2002 Farm Bill enhances the long-term quality of our environment and conservation of our natural resources. This bill provides several opportunities for receiving grants to improve water quality. These include the following programs administered by the US Department of Agriculture, Natural Resources Conservation Service and Farm Service Agency. Primarily, EQIP programs in use in this watershed include prescribed grazing, fencing, nutrient management, and animal waste storage structures.

- The Federal Farm Bill (Swampbuster Ag) prohibits landowners participating in federal price support programs from converting forested wetlands to agriculture.
- The Water Bank Act preserves, restores and improves wetlands of the Nation and thereby conserves surface waters to preserve and improve habitat for migratory waterfowl and other wildlife resources to retire lands not in agricultural production to enhance the natural beauty of the landscape and to promote comprehensive and total water management planning.10-year contracts with landowners to preserve wetlands and retire adjoining agricultural lands. Annual payments may be made to participating owners, and the costs of conservation measures may be shared. Total annual payments to owners were limited to $10 million in any year.
- The Conservation of Private Grazing Land Program will offer technical assistance opportunities for better grazing land management. Projects for improving water quality include: protecting soil from erosive wind and water; conserving water; providing habitat for wildlife; sustaining forage and grazing plants. This is not a Cost-Share Program.
- Conservation Security Program (CSP) is the first program that rewards farmers and ranchers for high levels of environmental stewardship. Producers on cropland, orchards, vineyards, pasture and range may apply for CSP regardless of size, type of operation, or crops produced. Land in other cost share programs is not eligible. CSP will first be offered in watersheds with greatest potential for improving water quality, soil quality and grazing land condition. In 2005, the four watersheds of focus will be the Ichawaynochaway, Kinchagoonee-Muckalee, Middle Flint, and Upper Ochlockonee. An enhancement example is to install a riparian buffer. There are three tiers of involvement, which result in different expectations and cost share opportunities.

- Environmental Quality Incentives Program (EQIP) is a voluntary program that provides technical and cost share assistance for protection of ground and surface water, erosion control, air quality, wildlife habitat, and plant health. It is a 50% cost share with possible additional incentive payments.
- Wetlands Reserve Program (WRP) provides technical and financial assistance to landowners to enhance wetlands degraded by farming or draining. There are three options with WRP to receive funds that have differing time agreements and easements resulting in different cost share. In all programs participants control access to the land, may lease or use land for hunting, fishing, and other passive recreational activities. Compatible uses are allowed as long as they do not degrade the wetland. Permanent Easement pays appraised value of land ($2,000/ acre cap) and 100% of costs of restoration. The 30-Year Easement pays 75% of appraised value of land and 75% of restoration costs. The Restoration Cost Share Agreement pays 75% of restoration costs, no easement on the property.
- The Conservation Reserve Program (CRP) provides technical assistance, rental payments and cost share funding to address specific natural resource concerns including: protection if ground and surface waters, soil erosion and wildlife habitat. Eligible practices include tree planting, grassed waterways, wildlife habitat buffers, and shallow water area for wildlife and filter strips. An annual rental payment is given for land taken out of production and 50% cost share for practice installation.

Metropolitan North Georgia Water Planning District Model Ordinances

Bartow County is a member of the Metropolitan North Georgia Water Planning District, which was created by the Georgia General Assembly to establish policy, create plans and promote intergovernmental coordination of all water issues in the area from a regional perspective. The county is included in the Metropolitan Water Planning District's Watershed Management Plan, which includes six protection strategy areas:

- Point Source Management
- Storm Water Management
- Total Maximum Daily Loads (TMDLs)
- Watershed Improvement
- Intergovernmental Coordination
- Long-term Monitoring

The MNGWPD Watershed Management Plan required each member to adopt these six model ordinances:

- Ordinance for Post-Development Stormwater Management for New Development and Redevelopment
- Floodplain Management/Flood Damage Prevention Ordinance (in review)
- Conservation Subdivision/Open Space Development Ordinance
- Illicit Discharge and Illegal Connection Ordinance
- Litter Control Ordinance
- Stream Buffer Ordinance

Bartow has adopted five of six Model Storm Water Management Ordinances that address Post Development Storm Water Management for New Development and Redevelopment, Conservation Subdivision/ Open Space Development, Illicit Discharge and Illegal Connection, Litter Control, and Stream Buffer Protection as required by Georgia EPD in MS4 Phase II Permit Renewals. The District Plan also addresses municipal good housekeeping practices to control non-point source pollution; improved enforcement of erosion and sedimentation control; storm water management for transportation projects; and education and public awareness activities. Bartow County has not adopted the District's Floodplain

Management/Flood Damage Prevention Ordinance, as it is being reviewed by the District. Bartow's current flood plain ordinance meets national flood insurance requirements and was revised as of 2000.

Existing floodplain management ordinances will be revised as counties participate in updating their flood hazard regions through the National Flood Plain Insurance Program/ Georgia DNR Floodplain Management Office Flood Map Modernization Program.

Bartow County Board of Tax Assessors is considering a proposed tax relief program for property owners who place conservation easements on all or part of their properties, especially for greenspace on timberland.

Bartow County Watershed Assessment and Protection Plan

Between 1990 and 2000 Bartow County experienced a 36% growth rate; subsequently the County began the Bartow County Growth Management Plan, completed in 1997, which was based on input from local residents and economic development experts and which suggested specific growth management strategies including expansion of water and wastewater treatment operations.

In 2000 Bartow County contracted with Kennesaw State University to conduct a watershed assessment as part of the watershed assessment and protection plan development requirements for existing and new wastewater treatment plants under NPDES. This assessment indicated that overall, streams in Bartow County were in "moderately good condition relative to other systems in the Atlanta metropolitan area (KSU, 2001)." However, the report pointed out that fecal waste among other impairments was present in individual streams including Lower Pumpkinvine Creek, Lower Stamp Creek, Salacoa Creek, Lower Euharlee Creek, Upper Two Run Creek, Upper Pettit Creek, Cedar Creek, Pine Log Creek, and Richland Creek (KSU, 2001). Some of these creeks were placed on the 2004 303 (d) impaired streams list for fecal coliform bacteria. Upper and Lower Tom's Creek, contained in this watershed but not listed as impaired, were reported in this assessment to have moderate to very good habitat with significant beaver activity near the confluence with the Etowah River. Variance in flow was suggested by substrate levels. Enterococci results indicated fecal material (not in levels violating state water quality standards) due to birds and human sources. Absence of animals in lower Tom's Creek suggested humans as most significant source of fecal waste.

Bartow County is considering expansion of the Bartow County Wastewater Treatment Plant in 2006-2007 and has conducted a county watershed assessment and developed the Bartow County Watershed Protection Plan as part of its expansion process to meet NPDES permitting standards. The watershed assessment results relate directly to the TMDL initiative.

Bartow County's Watershed Assessment and Protection Plan strategies were developed according to the Metropolitan North Georgia Water Planning District (District) Water Management Plan of 2003. The protection plan strategies include point source management, storm water management, the Total Maximum Daily Load initiative, watershed improvements, intergovernmental coordination and long-term monitoring. These strategies are covered as part of the District's Water Management Plan as well as the TMDL implementation plans; the NPDES Phase II for MS4's also requires implementation of the majority of these strategies.

Stormwater Management

Bartow County and Rome-Floyd County have NPDES-permitted Small Municipal Separate Storm Sewer Systems (MS4s) and are subject to the Phase II Stormwater Rules. These extended Phase II permitting rules include six parameters that deal with water quality including 1. Public Education and Outreach; 2. Public Participation and Involvement; 3. Illicit Discharge Detection and Elimination; 4. Construction Site Runoff Control; 5. Post-Construction Runoff Control; 6. Pollution Prevention and Good Housekeeping. Bartow County's NOI for its NPDES Phase II Stormwater Permit for a small MS4 was approved in 2005; Rome-Floyd County's NOI was also approved in 2005.

Components of Bartow County's NPDES Phase II Stormwater Management Plan involving Public Education and Outreach include the following:

- School System Stormwater Presentations provided yearly to teachers, students in county and city elementary and middle grades by the Keep Bartow Beautiful Coordinator;
- E & S Training Workshop on appropriate measures to control runoff and pollution provided biannually to the Bartow County Homebuilders' Association coordinated by the Bartow County Director of Engineering;
- Speaker's Bureau to speak on stormwater topics to area civic groups, with speakers to include County Administrator, Bartow County Water Superintendent, Stormwater personnel, and Keep Bartow Beautiful Coordinator;
- Stormwater Educational Materials, including a variety of flyers and pamphlets on E&S practices for homebuilders, new homeowners, and other topics such as septic system maintenance, xeriscape landscape plans, and proper fertilizer/pesticide application, developed by the Clean Water Campaign, P2AD, and EPA;
- Stormwater Management web page on the Bartow County Engineering Department's web space to include lawn and garden activity tips, water conservation, household waste disposal, household recycling, septic system maintenance, hazards of illicit dumping, and others;
- Newspaper Column on homeowners' stormwater pollution prevention responsibilities to be published quarterly in the Daily Tribune, written by the Bartow County Extension Agent.

Bartow County's Stormwater Management Plan includes 30 best management practices which include education and outreach in schools, to homeowner's associations, to the general public in brochure format, as well as news articles in the local paper dealing with stormwater management, volunteer stenciling of storm drains, and stream cleanup. These BMPs are carried out in cooperation with the County Extension Service, Keep Bartow Beautiful, the Boy and Girl Scouts, the County Engineer, and others in the County.

Bartow County is mapping stormwater drainage outfalls throughout the county to remain in compliance with its Phase II MS4 stormwater permitting. In 2006 100% of the county's stormwater outfall mapping is scheduled to be completed.

Components of Rome-Floyd County's NPDES Phase II Stormwater Management Plan involving Public Education and Outreach as stated in their NOI include the following Best Management Practices to reduce non-point source pollution in the county:

- Promoting River Clean-up Days on the Etowah, Oostanaula and Coosa Rivers; ,
- Sponsoring one River Clean-up per year;
- Promoting Adopt-A-Stream with certification and recertification of volunteers
- Establishment of 10 certified Adopt-A-Stream work groups.

Etowah Habitat Conservation Plan

The Etowah Habitat Conservation Plan reflects the work done by municipalities, water authorities, developers, industry, the University of Georgia, Kennesaw State University, Georgia DNR, the US Fish and Wildlife Service, and others in the Etowah River watershed to protect threatened and endangered species of darter by developing a regional conservation plan. The plan, including model ordinances and policies, allows included jurisdictions to be in compliance with the Federal Endangered Species Act and to obtain an Incidental Take Permit from the US Fish and Wildlife Service for development activities in the watershed, excluding agriculture and forestry. Ordinances and policies for implementation include the following:

- Stormwater Ordinance and Better Site Design
- Runoff Limits Program
- Erosion and Sedimentation Control Standard Operating Procedures
- Mass Grading Ordinance
- Stream Buffer Ordinance
- Road Crossing Guidelines
- Utility Crossing Guidelines
- Conservation Subdivision Ordinance
- Water Supply Planning

Existing municipal ordinances covering these areas can be updated. Revisions to the Metropolitan North Georgia Water Planning District Model Ordinances were recommended by the Etowah HCP subcommittees, as were revisions to the Bartow County Watershed Assessment and Protection Plan.

Specific areas of concern to the Etowah River identified by the Etowah Regional Aquatic Habitat Conservation Plan, and the corresponding actions taken by the county to address them, include:

- Poor riparian buffers
- Point sources
- Construction
- Channel erosion
- Historic sediment
- Impervious surfaces and storm water runoff
- Livestock
- Invasive Species
- Water Reservoirs

Bartow County has adopted the Metro North Georgia Water Planning District's model stormwater ordinance as revised by the Etowah HCP. The County is in the process of coordinating other existing ordinances with review of the Etowah HCP. Yet other revisions and ordinances dealing with runoff limits, road and utility crossings, are still being developed by the Etowah HCP.

Coosa River Basin Modeling Project (Georgia DNR EPD)

Georgia DNR EPD and USEPA are in the process of conducting a monitoring project to study the accuracy of the model developed for the Coosa River Basin. Monitoring is ongoing in 2005-2006 on the Coosa River and its tributaries. Data will be incorporated into the Total Maximum Daily Load (TMDL) for dissolved oxygen. The Coosa River Modeling work will be done by the Georgia DNR EPD in 2006 and 2007. A final model will link the Coosa River model and the Lake Weiss model. The combined models will evaluate oxygen demanding loads, nutrient loads, and temperature effects for heat loads, on dissolved oxygen (DO) concentrations in the Coosa River. The following data will be collected in separate modules:

- Watershed flow and temperature data
- Continuous water quality monitoring
- Water quality sampling
- Chlorophyll *a* sampling
- Wastewater treatment facility sampling and data collection (module 5)
- DO and temperature depth profiles
- Basin-wide phosphorus data
- Specialized studies
    - Reaeration measurements
    - Sediment Oxygen Demand measurements
    - Long-Term Biochemical Oxygen Demand (BODs)
    - Dye studies

The Floyd County monitoring site on the Etowah River will be included in the following testing modules: Chlorophyll A; Continuous Water Quality Monitoring; Water Quality Sampling (BOD, DO, Temp, TKN, NH_3, NO_2- NO_3, total P, ortho-phosphate, TOC, conductivity, and Ph); and Specialized studies (EPD).

Module 2: Continuous Water Quality Monitoring. Continuous water quality monitors will be installed and maintained for the study period at a number of tributary and mainstem locations. Continuous water quality monitors will be installed on the Conasauga River at the USGS gaging stations at Eton and downstream from Carters and Allatoona Dams to collect upstream boundary condition data necessary for EPD RIV-1. The monitors will record DO, temperature, conductivity, pH, and depth at hour intervals (EPD).

Module 3: Water Quality Sampling. This module includes the collection and analysis of discrete water quality samples at locations on the Coosa River mainstem and tributaries from Allatoona Dam on the Etowah River, Carters Lake on the Coosawattee River, and the USGS Eton gage on the Conasauga River to the George/Alabama State Line. The data collection will include discrete mainstem and tributary water quality sampling. The samples will be analyzed for carbonaceous and total BOD_5 (inhibited and uninhibited), DO, temperature, TKN, NH_3, NO_2-NO_3, total phosphorus, ortho-phosphate, TOC, conductivity, and pH. Flow measurements will be made at the time of sample collection (Georgia DNR EPD).

Module 4: Chlorophyll A. Periodic collection of chlorophyll A data on tributaries.

Module 5, Wastewater Treatment Facility Sampling and Data Collection, will include discharge monitoring reports (DMRs) and/or operating monitoring reports (OMRs) data from wastewater treatment plants and sampling of mainstem and tributary dischargers. The additional sampling will be done as a quality assurance check for data given by the dischargers (Georgia DNR EPD).

Module 8: Special Studies. This module includes several specialized studies including reaeration, sediment oxygen demand (SOD), long-term BOD tests, and dye studies. River, tributary and selected wastewater treatment plant effluent samples will be collected for long-term BOD analysis during the field surveys. Long-term BOD analyses will include periodic testing of nitrogen components to determine possible nitrification reactions. Aged river water will be used as dilution water, when necessary. Samples will be collected and analyzed from each location for both monitoring years (Georgia DNR EPD).

Other Watershed Activities

The Northwest Georgia Regional Water Resources Partnership (NGRWRP) was created in 2002. The NGRWRP is an organization of water permit holders, local governments, industry, environmental, and other advocacy entities in Northwest Georgia with an interest in water issues (North Georgia Regional Development Center, 2005). The purposes of the Partnership are to monitor and contribute to the development of federal, state, and local water policy; educate the citizenry on water related issues; seek funding and facilitate the development of regional water-related assessment and planning activities; and coordinate the activities of federal, state, and local entities (NGRDC, 2005). Gene Camp, Bartow County Water Department Superintendent, Jerry Jennings, Floyd County Commissioner, and Leigh Ross, Director of the Rome-Floyd County Water Department, serve on the partnership's executive committee.

Bartow County is also a Yellow Ribbon-level member of the P^2AD Partnership and has committed to a two-year effort (2004-2006) with Georgia Institute of Technology's Economic Development Institute to develop an Environmental Management System Program. The Yellow Ribbon level signifies that a county or other member is being proactive in addressing environmental impacts of development. The City of Cartersville and Bartow County continue to have a good working relationship in areas of water quality. City and county have cooperated in various water quality projects including the Etowah Habitat Conservation Plan, the Bartow County Watershed Assessment, Greenspace Committee, and Lake Allatoona Preservation Authority projects.

Rolling Hills Resource Conservation and Development Council conducts the Envirothon, a yearly competition for high school students, testing skills and knowledge of aquatics including water quality and other environmental topics. District and State competitions will be in March 2006. Other projects are in the proposal stages.

Adopt-A-Stream, in conjunction with Coosa River Basin Initiative (CRBI), conducts ongoing water quality chemical and biological volunteer training and monitoring, stream clean-ups, stream bank and habitat restoration, and visual stream surveys in Bartow County. Testing for fecal coliform is not practical at this time.

Get the Dirt Out is a project of the Coosa River Basin Initiative which provides volunteer training for construction site inspection and identification of failure to use BMPs in construction activities. The project was implemented in March 2005 and covers the Northwest Georgia area of the Coosa River Basin.

Keep Bartow Beautiful runs several education and outreach programs including the following: Teacher training for Waste In Place, Project WET (Water Education for Teachers), and Enviroscape non-point source pollution using tabletop models; Stormwater-related presentation materials provided to schools; and a Speakers' bureau to provide outreach on storm water issues to local civic groups. Other projects are in the proposal stages. TREESBartow is a related program to encourage tree conservation in the county. A recent project is Springbank's new tree identification trail; proposed projects include an educational Earth Day event with 200 Adairsville Middle seventh-graders. Community cleanups are scheduled for April 2006.

Bartow County Greenspace Committee acquires and preserves riparian buffers in Bartow County. This steering committee was formed in 2000 in response to Governor Barnes' greenspace initiative. Criteria for land purchases in the county include the following:

- Land should help protect waterways and watersheds;
- Land should have historical or biological importance- for example, the site of an old Indian village, or a swampland or wetland area;
- Area should be beneficial to wildlife;
- Area should link other areas, allowing for wildlife corridor; and
- Land should be affordable for the county program.

Greenspace lands will be used for recreation with walking trails, and will feature restored riparian buffers and other conservation measures. The committee is funded by SPLOST funds. Proposed purchases include a tract on the South bank of the Etowah between Pumpkinvine Creek and Paga Mine Road; and property on Leake Mound, currently in the process of a historical impact study by Southern Research, Historic Preservation Consultants, Inc. The Leake Site is thought to predate the Etowah Indian Mounds by a thousand years.

Rome-Floyd County purchased greenspace lands along Silver Creek within Rome city limits. The city now owns most of the land along Silver Creek inside the city limits from East 12th Street to Silver Creek's confluence with the Etowah River. Although the city would like to expand the greenspace and riparian areas on Silver Creek, presently there are no funds allocated for this purpose.

In the past, Rome-Floyd County, Coosa River Basin Initiative, the Georgia Conservancy, and Southeast Waters/ Americorps completed a streambank restoration project on city property along Silver Creek in 2001-2002. This restoration project is located at the South McLin Street Bridge.

Rome has worked previously with Trout Unlimited to revegetate the stream banks and to install rock weirs and other habitat enhancements (University of Georgia, 1998). However, the Trout Unlimited study found that inside the city limits, temperatures were too high to support trout, so the project is inactive at this time.

Adopt-A-Stream data has been collected on Silver Creek since 1990. Recently CRBI has adopted the creek. There are two active and one inactive monitoring sites on Silver Creek. Adopt-a-Stream sampling included dissolved oxygen, temperature, PH, and alkalinity at the Crescent Street Bridge, and Coosa River Basin Initiative (CRBI) is sampling for the same chemical indicators near Silver Creek's conjunction with the Etowah. CRBI also conducts stream clean-ups, stream bank and habitat restoration, and visual stream surveys in Bartow County.

The Coosa River Basin Initiative conducts the water drop non-point source pollution education programs for elementary school students in Floyd County through a grant from Temple-Inland. As well, Get the Dirt Out is another project which provides volunteer training for construction site

inspection and identification of failure to use BMPs in construction activities. The project was implemented in March 2005 and covers the Northwest Georgia area of the Coosa River Basin.

Rome-Floyd County has previously conducted two Water Education for Teachers workshops, in 2004 and in 2005, to train teachers to do water quality education integrated into the curriculum. Three schools have done so, including Armuchee Elementary, West End Elementary, and Berry Elementary. The goal is to continue to train teachers so that more schools integrate the water quality education into their curriculums.

Floyd and Bartow Counties' Environmental Health Departments participate in a statewide DVD education program for new septic system owners. The Health Department can only check systems if there are complaints, which are sometimes received from landowners. Additionally homeowners or real estate agents ask that the older septic system be checked during remodeling or prior to resale. New regulations for septic system installation recently introduced which require those operators conducting septic system pumpouts to submit monthly logs of their activities.

Dykes Creek

COMPLETE THE FOLLOWING TABLES FOR AND NARRATIVES ABOUT EACH IMPAIRED STREAM IN THE WATERSHED.

STREAM SEGMENT NAME	LOCATION	MILES/AREA	DESIGNATED USE	PS/NS
Dykes Creek	Bartow and Floyd Counties (EPA)	10.5	Fishing	NS

III. SOURCES AND CAUSES OF STREAM SEGMENT IMPAIRMENT LISTED IN TMDLs

After reviewing the TMDLs written for this stream, complete the following tables with **the information found in the TMDLs**. List each parameter for which the stream segment is impaired and the water quality standard violated. See the instructions for the water quality standards. Describe the sources and causes of each violation identified in the TMDLs.

Table 2. SOURCES OF IMPAIRMENT AS INDICATED IN TMDLs

PARAMETER 1	WQ STANDARD	SOURCES OF IMPAIRMENT	NEEDED REDUCTION FROM TMDL
Biota (Sediment)	No degradation of fish community	• Roads • Agriculture • Bare ground from construction activities • Silviculture	90 percent

Etowah River

COMPLETE THE FOLLOWING TABLES FOR AND NARRATIVES ABOUT EACH IMPAIRED STREAM IN THE WATERSHED.

STREAM SEGMENT NAME	LOCATION	MILES/AREA	DESIGNATED USE	PS/NS
Etowah River	US Highway 411 to Coosa River (Bartow and Floyd Counties)	21	Fishing	NS

III. SOURCES AND CAUSES OF STREAM SEGMENT IMPAIRMENT LISTED IN TMDLs

After reviewing the TMDLs written for this stream, complete the following tables with **the information found in the TMDLs**. List each parameter for which the stream segment is impaired and the water quality standard violated. See the instructions for the water quality standards. Describe the sources and causes of each violation identified in the TMDLs.

Table 2. SOURCES OF IMPAIRMENT AS INDICATED IN TMDLs

PARAMETER 1	WQ STANDARD	SOURCES OF IMPAIRMENT	NEEDED REDUCTION FROM TMDL
Fecal Coliform Bacteria (FC)	1,000 per 100 ml (geometric mean November- April) 200 per 100 ml (geometric mean May-October)	Wildlife Agricultural/Livestock • Animal grazing • Animal Access to streams • Application of manure to pastureland and cropland Urban Development • Leaking septic systems • Land Application Systems • Landfills	57 percent

Silver Creek

COMPLETE THE FOLLOWING TABLES FOR AND NARRATIVES ABOUT EACH IMPAIRED STREAM IN THE WATERSHED.

STREAM SEGMENT NAME	LOCATION	MILES/AREA	DESIGNATED USE	PS/NS
Silver Creek	Headwaters to Etowah River, Rome (Floyd County)	15	Fishing	NS

III. SOURCES AND CAUSES OF STREAM SEGMENT IMPAIRMENT LISTED IN TMDLs

After reviewing the TMDLs written for this stream, complete the following tables with **the information found in the TMDLs**. List each parameter for which the stream segment is impaired and the water quality standard violated. See the instructions for the water quality standards. Describe the sources and causes of each violation identified in the TMDLs.

Table 2. SOURCES OF IMPAIRMENT AS INDICATED IN TMDLs

PARAMETER 1	WQ STANDARD	SOURCES OF IMPAIRMENT	NEEDED REDUCTION FROM TMDL
Fecal Coliform Bacteria (FC)	1,000 per 100 ml (geometric mean November- April) 200 per 100 ml (geometric mean May-October)	Wildlife Agricultural/Livestock • Animal grazing • Animal Access to streams • Application of manure to pastureland and cropland Urban Development • Leaking septic systems • Land Application Systems • Landfills	67 percent

Spring Creek

COMPLETE THE FOLLOWING TABLES FOR AND NARRATIVES ABOUT EACH IMPAIRED STREAM IN THE WATERSHED.

STREAM SEGMENT NAME	LOCATION	MILES/AREA	DESIGNATED USE	PS/NS
Spring Creek	Etowah River Tributary (Floyd County)	2	Fishing	NS

III. SOURCES AND CAUSES OF STREAM SEGMENT IMPAIRMENT LISTED IN TMDLs

After reviewing the TMDLs written for this stream, complete the following tables with **the information found in the TMDLs**. List each parameter for which the stream segment is impaired and the water quality standard violated. See the instructions for the water quality standards. Describe the sources and causes of each violation identified in the TMDLs.

Table 2. SOURCES OF IMPAIRMENT AS INDICATED IN TMDLs

PARAMETER 1	WQ STANDARD	SOURCES OF IMPAIRMENT	NEEDED REDUCTION FROM TMDL
Fecal Coliform Bacteria (FC)	1,000 per 100 ml (geometric mean November- April) 200 per 100 ml (geometric mean May-October)	Wildlife Agricultural/Livestock • Animal grazing • Animal Access to streams • Application of manure to pastureland and cropland Urban Development • Leaking septic systems • Land Application Systems • Landfills	82 percent

IV. IDENTIFICATION AND RANKING OF POTENTIAL SOURCES OR CAUSES OF IMPAIRMENT

INVESTIGATE AND EVALUATE the sources of impairment for each parameter listed in Table 2. Write a narrative describing efforts made or procedures used to verify the significance and extent of the sources or causes of each impairment listed in the TMDLs. Include:

- Involvement of stakeholder group
- Review of land cover data
- Field surveys
- Evaluation of sources

Verification of the significance and extent of the sources or causes of each impairment listed in the TMDLs was done through a series of field surveys and stakeholder meetings. The TMDLs list three probable causes of fecal coliform contamination: Wildlife, Urban Development, and Agricultural/ Livestock. Reductions expected from the overall contaminant loading range from 57% to 90%.

A series of stops allowing visual field surveys of Silver Creek, Spring Creek, Dykes Creek, and the Etowah River was conducted to visually evaluate stream condition including turbidity, sedimentation and erosion, stream bank condition, stream bed condition, depth, flow, and color. Field surveys also noted the presence of any factors thought to contribute to non-point sources of fecal coliform loadings including wildlife, animal grazing, animal access to streams, application of manure to pastureland and cropland, possibility of leaking septic systems, Land Application Systems (LAS), CAFOs ·and landfills. These data from field surveys were combined with GIS data and EPD listings of NPDES dischargers as well as information from stakeholders.

For the Silver Creek Watershed, there are several listed inert or transfer station sites for solid waste disposal. There were no CAFOs or mining operations in the area. Photographs of sources seen in the field surveys and corroborated by stakeholders are found in Appendix C.

Dykes Creek, Habitat, Sediment
Point Sources: None were identified**.**
Non-point sources: Soil erosion and sedimentation from bank undercutting or runoff due to some agricultural work areas on farmland. At most points a good buffer was seen. Please see photograph 3. 0135010416 Dykes Creek- Wayside Rd: Creek drains agricultural work area; 4. 0135010416 Dykes Creek- Blue Pond Church on Wade Mountain Rd: Tributary drains pasture, 1 of 2; and 5. 0135010416 Dykes Creek- Blue Pond Church on Wade Mountain Rd: Tributary drains pasture, 2 of 2.

Etowah River, Fecal Coliform Bacteria
Point Sources: None were identified**.**
Non point sources: The Etowah segment has a higher percentage of land in row crops (6.3%) and low-intensity residential than other stream segments in the watershed, and a correspondingly slightly lower percent of forested land. Observed a mixture of agriculture and row crops as potential causes of impairment. No illicit discharges were observed. Extensive repairs were done to water and sewer system and are ongoing. Rome-Floyd County is covered under CMOM. There were three events in 2005-2006 of sewer overflows or illicit discharge to the Etowah River.

This area drains urban runoff from the City streets.
Wildlife were seen along the waterway. The area included a recent shopping development on Highway 27 (Turner McCall Blvd) inside City of Rome, with new BMPs such as large rock and soil erosion matting used to stabilize banks and promote grassing. Please see photographs 9.

3010510416 Silver Creek US Hwy 411 to Coosa River: Riverside Drive, Silt fencing and stormwater conveyance seen; and 10. 3010510416 Silver Creek US Hwy 411 to Coosa River: Veterans Parkway Bridge river is accessible to wildlife.

The Source Water Assessment Plan for the City of Rome's secondary intake on the Etowah River was conducted in 2003 and identified pollution sources inside the immediate Inner Management Zone of the river as being sewers, lift stations, and poultry facilities. There are 4 Resource Conservation and Recovery Act areas in the immediate watershed. Other sources of pollution were identified in the SWAP but would not contribute to fecal coliform loadings in the Etowah River (CVRDC, 2003).

Silver Creek, Fecal Coliform Bacteria
Point source: None were identified.
Possible city sewer contamination in the past.
Non point sources: Wildlife was seen in the rural areas. Please see photographs 1. 0135010416 Silver Creek (Floyd County) Bethel Church Rd and Southern Railway crossing: Stream accessible to wildlife; and 2. 0135010416 Silver Creek (Floyd County) Brice Station and Burkhalter Rd: Stream accessible to wildlife.

Pastureland with livestock was seen in Polk and into southern Floyd County. Urban runoff evidence was also seen as the water had an oily sheen at Brice Station and Burkhalter Road. Most field survey sites saw good vegetative and tree buffers. Approximately half of the Silver Creek area in southeastern Floyd County is outside the urbanized area covered by Rome-Floyd County sewer and would be on septic systems. In Floyd County, of a total of 16,981 septic systems recorded, 4,411 systems were installed and 987 were repaired between 1990 and 2000 (EPD, 2004). Septic system installation is regulated through permits and inspections of on-site sewage management systems; plumbers and other maintenance operators are required to submit monthly logs of pump-outs and maintenance done to systems.

Spring Creek, Fecal Coliform Bacteria
Point source: None were identified**.**
Non point sources: Agricultural runoff to small tributaries to the creek. Most of the Biddy Road area was dry bed, even after rainfall in the area. Good flow near US Highway 411 crossing. Several fish were seen, probably brown trout. Upstream debris or beaver activity was seen blocking part of the stream width. Please see photographs 6. 0315010416 Spring Creek Upstream of listed segment: Pleasant Valley Road at Unity Baptist Church- Possible beaver activity upstream partially blocks stream; and 7. 0315010416 Spring Creek: Wax Rd Upstream of listed 2 mile segment- Accessibility of stream to wildlife; and 8. 0315010416 Spring Creek: Abrams Rd Upstream of listed 2 mile segment- drains pastures.

Field Survey Notes (Please see photographs in Appendix C)

Field notes; # 18 Dykes Creek Bio/Sediment
Survey Team: Nancy Gribble
Date: June 21, 2005
Weather Conditions: Partly cloudy, ~75 degrees F.

Stop # 1: Highway 293 Bridge (Floyd Co.)
Water appearance was clear, good flow, houses in the area, and pasture with cattle near creek.

(USGS employee at bridge gathering samples and data), pipe crosses creek on the downstream side of the bridge.

Stop # 2: Fred Kelley Road, bridge
Water appearance very clear, very low banks, area mowed to the creek bank, slow flow. Area before the bridge had good tree buffer.

Stop # 3: Morrison Campground Road
Water appearance was clear, slight flow, grass mowed down to banks. Houses and pasture land for miles.

Stop # 4: Creek seen at Blue Pond Church, on Wade Mountain Road.
Water appearance was clear, slight flow; this is a beginning tributary for the headwaters. Partially blocked in areas by grass and weeds.
Pasture along side of creek.
Photographs taken: 4. 0135010416 Dykes Creek- Blue Pond Church on Wade Mountain Rd: Tributary drains pasture, 1 of 2; and 5. 0135010416 Dykes Creek- Blue Pond Church on Wade Mountain Rd: Tributary drains pasture, 2 of 2.

Stop # 5: Wayside Road
Water appearance milky, cloudy, very small flow to road bridge. Lots of grass in the stream bed.
Photograph taken: 3. 0135010416 Dykes Creek- Wayside Rd: Creek drains agricultural work area.

Field Notes: #19 Etowah River (Floyd Co.)
Survey Team: Nancy Gribble and Jill Joss
Date: June 23, 2005
Weather Conditions: Sunny, ~ 90 degrees F.

Stop #1: Veterans Parkway Bridge (known as the By–Pass)
River is very wide, water appearance was muddy due to rains, banks were well buffered, row cropping past buffer zone.
Photographs taken: 10. 3010510416 Silver Creek US Hwy 411 to Coosa River: Veterans Parkway Bridge river is accessible to wildlife.

Stop # 2: Second Avenue Bridge (newly opened expansion)
Water appearance was muddy, fast flowing, drains parking lots, impervious areas of town, decent tree buffer.

Stop #3: Riverside Drive, behind Riverbend Mall
River runs along the roadside here, silt fencing seen with failure, new BMPs such as large rock and soil erosion matting used to help stabilize the banks and promote grassing. Area seen had large concreted stormwater conveyance to the river. Water appearance was muddy, with good flow.
Photographs taken: 9. 3010510416 Silver Creek US Hwy 411 to Coosa River: Riverside Drive, Silt fencing and stormwater conveyance seen.

Stop #4: Etowah River-East 4th Ave (at Heritage Riverways Trail, pathway over old RR trestle, named Robert Moore Path)
Water appearance was muddy, good flow, good tree buffer along both banks

Field Notes: #20 Silver Creek (Floyd County)
Survey Team: Nancy Gribble and Jill Joss
Date: June 23, 2005
Weather Conditions: Sunny, slight breeze, ~ 80 degrees F.

Stop #1: Brice Station and Burkhalter Road
Water appearance was clear, slow water flow, appears deep, oil sheen from urban runoff at roadside bridge. Tree buffer, but mowed to the curb in places.
Photograph taken: 2. 0135010416 Silver Creek (Floyd County) Brice Station and Burkhalter Rd: Stream accessible to wildlife.

Stop #2: Bethel Church Road and Southern Railway crossing
Water appearance was clear, good flow, bank structure good, vegetation good along banks. Houses set well back from the creek.
Photograph taken: 1. 0135010416 Silver Creek (Floyd County) Bethel Church Rd and Southern Railway crossing: Stream accessible to wildlife.

Stop # 3: Donahoo Road
Stream is wider and shallower at this point, good flow, water appearance was clear.
Tree buffer along banks.

Stop # 4: Willard Nixon Park at Silver Creek United Methodist Church
Water appearance was clear, good flow, locals use this park for swimming and wading recreation at the park. Rock cascade built in stream. Silver Creek is a Rome Adopt-A-Stream project of the Pepperell Elementary supported by Lindale Manufacturing.

Field Notes: #20 Silver Creek (Floyd County inside the City of Rome)
Date: September 7, 2005
Survey Team: Jill Joss and Nancy Gribble
Weather Conditions: Sunny, slight breeze, ~78 degrees F.

Stop # 5: Crescent Ave.
The stream appearance was clear, good flow, small sediment bar with grass and trees in the middle of the stream. Good vegetative and tree buffer along the banks, levy area seen on the downstream side. Neighborhood surrounds the creek, mowing of property up to the levy and sides of the stream. Area very clean, no littering…question as to this area part of a cleanup campaign? Stream bed contained small rock bed. One pipe was laid over the bridge probably city water line.
Wildlife: Heard birds, none seen.

Stop #6: Darlington Drive
Some of area around this segment is light industrial and commercial businesses. The stream appearance was clear, good flow, good tree buffer along both sides. Pastureland was seen, with Hay growing and harvesting. The stream bed was small rock. Piping was laid along side of the bridge over the creek. One gas line, and two pipes seen going through the water, a manhole seen on the north side bank. Piping is the cause of debris piling up in the stream (downstream side of bridge, Karl Dance Bridge)

Wildlife: birds seen in the area

Field Notes: Spring Creek # 21 (looked at segments prior to the listed segment—2 mile to Etowah River)
Survey Team: Nancy Gribble
Date: July 28, 2005
Weather conditions: Sunny, slight breeze, ~80 degrees F.

Stop # 1: Peeples Rd.
The creek is at its' headwaters in southern Floyd County, very small stream width and very low flow, intermittent.

Stop # 2: Wax Rd.
No flow, very stagnant water
Photograph taken: 7. 0315010416 Spring Creek: Wax Rd Upstream of listed 2 mile segment- Accessibility of stream to wildlife.

Stop # 3: Wax Rd., second culvert
No flow, very low flow

Stop # 4: Plemons Road
Spring Creek has another trib. merge here, good flow, water was clear.
Photograph taken: 8. 0315010416 Spring Creek: Abrams Rd Upstream of listed 2 mile segment- drains pastures.

Stop # 5: Pleasant Valley Road (@ Unity Baptist Church)
Stream was clear, good flow, much wider here, mowed to creek on church yard, good tree buffer upstream. Upstream debris or beaver activity blocking part of the stream width.
Wildlife: Several fish seen, probably brown trout ~ 5 to 6 fish from 4" to 6" in length
Photograph taken: 6. 0315010416 Spring Creek Upstream of listed segment: Pleasant Valley Road at Unity Baptist Church- Possible beaver activity upstream partially blocks stream.

Stop # 6: ?Nichols Road, very low flow, residential area
These stream segments were outside of the Spring Creek 2 mile segment listed by EPD.

Field Notes: #21 Spring Creek
Survey Team: Nancy Gribble
Date: June 21, 2005
Weather Conditions: Sunny, slight breeze, ~85 degrees F.

Stop # 1: Biddy Road. Creek bed is dry.

Stop #2: Chulio Road bridge. Water appearance was clear, good flow, good tree buffer. Creek drains pasture land.

To the extent possible, identify sources and quantify the extent of pollution in the stream segment for each of the parameters listed in Table 2 and evaluate the likely impact on the parameter load to the stream. This should follow research performed and described in preceding narrative and should correct or add information to the TMDLs. **The *SOURCES SHOULD BE RANKED*** from those having the most impact to those having the least impact. The estimated extent of contribution can be expressed as the area of the watershed affected, the stream miles affected, or the number of activities contributing to the problem. The magnitude of contribution should be estimated to be large, moderate, small, or negligible.

Table 3. CONCLUSIONS MADE OF POTENTIAL SOURCES OF STREAM SEGMENT IMPAIRMENT

Dykes Creek

PARAMETER	POTENTIAL SOURCES	ESTIMATED EXTENT OF CONTRIBUTION	ESTIMATED MAGNITUDE OF CONTRIBUTION	COMMENTS
Habitat, Sediment	Bank undercutting or runoff due to some agricultural work areas	Throughout	Moderate	

Etowah River Hwy 411 to Coosa River

PARAMETER	POTENTIAL SOURCES	ESTIMATED EXTENT OF CONTRIBUTION	ESTIMATED MAGNITUDE OF CONTRIBUTION	COMMENTS
Fecal coliform Bacteria	Urban runoff from City streets	End of segment	Moderate	
FC	Agricultural livestock runoff	Beginning of segment	Moderate	Pastureland seen with cattle and horses
FC	Wildlife sources	Throughout	Moderate	Abundant sources in rural Bartow and west Floyd Counties
FC	Possible old sewer connections to the river	Within City limits	May have contributed in past.	No known illicit discharge. Extensive repairs done to water and sewer system. Rome-Floyd County covered under CMOM.
FC	Possible city sewer contributions due to leaks	Within City limits	Moderate	Three events in 2005-2006 of sewer overflows or illicit discharge to river. Extensive repairs done to water and sewer system. Rome-Floyd County covered under CMOM.

Silver Creek

Parameter	POTENTIAL SOURCES	ESTIMATED EXTENT OF CONTRIBUTION	ESTIMATED MAGNITUDE OF CONTRIBUTION	COMMENTS
Fecal Coliform Bacteria	Agricultural livestock runoff	Throughout	Moderate	Pastureland seen with cattle and horses
FC	Wildlife Sources	Throughout	Moderate	Abundant wildlife in the area

Spring Creek

Parameter	POTENTIAL SOURCES	ESTIMATED EXTENT OF CONTRIBUTION	ESTIMATED MAGNITUDE OF CONTRIBUTION	COMMENTS
Fecal Coliform Bacteria	Agricultural livestock runoff	Throughout	Moderate	Pastureland seen with cattle and horses
FC	Wildlife sources	Throughout	Moderate	
FC	Possible leaking or failing septic systems	Mid-watershed	Small	Small number of houses located near the stream

V. STAKEHOLDERS

PUBLIC INVOLVEMENT AND THE ACTIVE PARTICIPATION OF STAKEHOLDERS is essential to the process of preparing TMDL implementation plans and improving water quality. Stakeholders can provide valuable information and data regarding their community, impaired water bodies, potential causes of impairments, and management practices and activities which may be employed to reduce the impacts of the causes of impairment.
Describe outreach activities to advise and engage stakeholders in the TMDL implementation plan preparation process. Describe the stakeholder group employed or formed to address the impaired segments in the watershed. Summarize the results of the number of attendees and meetings and describe major findings, recommendations, and approvals.

Stakeholder Determination

Stakeholder lists were developed by reviewing lists of stakeholders contacted and involved in previous TMDL projects and in Source Water Assessment Projects done by the Coosa Valley RDC. Other stakeholders were added as they came forward or through word of mouth were introduced to the process. As well, other stakeholders were contacted and asked to participate, if they had not already been listed. Stakeholders were informed of the process and invited to participate, and to attend informational sessions, by mass mailings.

Stakeholder lists were developed by reviewing lists of stakeholders contacted and involved in previous TMDL projects and in Source Water Assessment Projects done by the Coosa Valley RDC. Other stakeholders were added as they came forward or through word of mouth were introduced to the process. As well, other stakeholders were contacted and asked to participate, if they had not already been listed. Stakeholders were informed of the process and invited to participate, and to attend informational sessions, by mass mailings. A workshop was held jointly with the North Georgia Regional Development Center on CLEAN WATER the TMDL Link, A Toolbox for Improving Water Quality. A series of informational meetings were held to inform communities of the TMDL process and to answer questions and address concerns. Groups such as the Georgia Poultry Federation and the New Echota River Alliance were also invited to participate in plan development or as advisory committee members.

The Coosa Valley Regional Development conducted several TMDL informational and stakeholder public meetings:

May 17, 2005 TMDL Stakeholder Meeting held at the Forum in Rome, Georgia for the streams in the Coosa Basin (27 attendees)

August 30, 2005 TMDL Stakeholder Meeting held at Red Top Mountain State Park and Lodge, Cartersville, Georgia for the streams in Bartow/Gordon/Paulding/Polk/Pickens County areas (20 attendees)

September 1, 2005 TMDL Stakeholder Meeting held in Rome, Georgia for the Floyd/Chattooga County areas (24 attendees)
October 18, 2005 Fall Workshop-Northwest Georgia Regional Water Resources Partnership held in Dalton, Georgia. Workshop title: CLEAN WATER the TMDL Link, A Toolbox for Improving Water Quality. Coosa Valley Regional Development Center & North Georgia Regional Development Center had two separate breakout sessions on the TMDL Implementation Plans for Stakeholder Interest (73 attendees)

December 7, 2005 Stakeholder Meeting held at the Calhoun Depot in Calhoun, Georgia for the Bartow, Gordon, Paulding, Polk and Pickens Counties (7 attendees).

December 8, 2005 Stakeholder Meeting held at the Sara Hightower Regional Library in Rome, Georgia for Floyd and Chattooga Counties (12 attendees)

Stakeholders were also contacted individually to introduce the TMDL implementation process and to invite input into the implementation plans as members of the advisory committee.

Stakeholder Comments from Initial Meeting for Streams in the Coosa Basin

- How does a stream get listed for Biota? Are there specific water body regulations?
- Please explain Coosa Valley Regional Development Center's work plan.
- Are template for the TMDL Implementation are available to the Conasauga River Alliance?
- How does the watershed assessment fit together with the TMDL Implementation?
- What happens if no city works on improving stream quality?
- EPD needs to change standards on fecal coliform for the listing of streams.
- How does nutrient quality become regulated? Interested in the phosphorous TMDLs and Lake Allatoona.
- The North Georgia Water Resources Partnership will present grant opportunities across the fifteen county area.
- How committed is EPD and Coosa Valley Regional Development Center in this process?
- What happens after the stakeholders are identified?
- How does EPD work with organizations to eliminate the identified problem source?
- EPD needs to step up the approvals of the Phase II storm water plans. This would give some authority to certain groups to be responsible for runoff pollution.
- The USDA has some funding available to public for stack houses and fence buffers.

Stakeholder Meeting for Floyd/Chattooga Counties SubBasin Comments

- One problem is the release of water from Allatoona Dam. Second, some people are building too close to the waterways.
- Stream buffer zones for trout and regular fishing designations.
- Floyd County regulations supersede State of Georgia regulations on stream buffers to 100 feet.
- We need clarification on septic tank installation.
- Clarification provided on septic system regulations and what the county (Chattooga) expects.
- Unfortunately the homeowner does not maintain septic systems, only when the water backs up or causes a problem or becomes odorous.
- The District health department has a video on septic tank management.
- A 90% cost-share program can be used to get farmers to put fencing up and make stream crossings.
- Agricultural activities have been exempt from the buffer zones. NRCS agent described how fencing can be installed and exempt from taxing (Continuous Reserve Program)
- It is a good time for landowners to get cost shares to do projects.
- The CRBI volunteers would assist with any fencing work to aid farmers. Physical labor is available.

- For beaver dams, what relief can be done?
- How can dry weather affect the TMDL?
- Local governments can set up monitoring to delist streams.
- EPD has some funding for monitoring.
- Cattle are large sources of fecal coliform in runoff for the Etowah River.
- Why have cattle become an elevated issue for fecal coliform?
- It seems that farmers are picked on for fecal runoff. Where was the sampling done?
- Poultry farmers are concerned about fecal coliform data. It needs to be more current data.
- Streams can be monitored to show that fecal coliform levels do fluctuate with weather conditions. Check streams for newer data or start new monitoring if funding is available. Do it!
- The deer population are a great problem for fecal coliform.
- The geese population is also a great contributor to the fecal coliform source.

Stakeholder Meeting for Bartow/Gordon/Paulding/Polk/Pickens Counties SubBasin Comments

- Local governments do not have regulatory authority to control agriculture or septic processes.
- Georgia Poultry Federation sees the farmers and growers that are willing to be educated and implement BMPs.
- Bartow County farmers still allow cattle to get to streams to pollute.
- Septic systems are not generally regulated and the State of Georgia needs to be proactive and set regulations to control septic or agricultural sources. Are there any regulations where the owner who clears vegetation along a stream bank can be corrected?
- EPD should enforce their authority and not rely on local governments to do enforcement. Get the State to partner with local government. We do not understand why EPD lowered the buffer zone along streams. (*N. B.* EPD's response is, "The State of Georgia decreased the stream buffer requirements not the Georgia Environmental Protection Division.") The State of Pennsylvania requires on-site septic systems to be regulated.
- Speaking from the poultry-agricultural issues, getting farms to operate effectively and well managed will benefit local governments. Do not over regulate farmers.
- The need is great to get the TMDL information and assure accuracy. Cities and governments are regulated on accurate information.
- Make sure standards that are used to regulate streams are correctly identifies as to which ones actually impact human health.
- Can 319 grants are used? Can the money be funneled through the RDCs?
- We need to use a comprehensive approach to onsite septic systems where there are no sewer systems?
- How do we develop BMPs when the sources are not known?

The **Floyd and Chattooga Stakeholder Advisory Group (BCSAG)** was formed in February 2005 for the purpose of establishing and directing stream water quality monitoring and outreach efforts to address nonpoint source pollution. Stakeholders in this group represented Rome-Floyd County and Chattooga County.

This group met in February 2006 to review the draft TMDL Implementation Plans for watersheds in the county and to discuss monitoring and outreach efforts. Due to low turnout, implementation activities were discussed in more detail in a second meeting in March. The March 21st meeting was a discussion of recommended management measures including education and outreach on septic system maintenance, riparian

buffers, and stormwater best management practices. These general measures were approved; details of the implementation activities will be further reviewed in upcoming months.

Meeting Summary, Chattooga/Floyd Counties TMDL Implementation Plan Advisory Group, February 14, 2006
Attendees included Leigh Ross, Rome-Floyd County Water and Sewer, Kenneth Mosely, Chattooga County Young Farmers' Association, Brent Allen, Chattooga County Extension Agent, and Wayne Hurley, Chattooga Farm Bureau, David Howerin, Planning Director, Coosa Valley RDC, Jill Joss, and Julie Meadows, Coosa Valley RDC, were present.

- Draft TMDL Implementation Plan for the Chattooga River watershed (HUC-10 0315010505) was reviewed.

- Stakeholders suggested comments and additions to the plan.

- Outreach activities including stream cleanups on Henry Branch Creek by a group from Chattooga High School were discussed.

- Land use changes were discussed. Stakeholders stated that row crops had decreased. Majority of livestock operations in county are cattle with very few poultry operations. Referenced UGA's Georgia County Guide. All remarked on prevalence of wildlife in watershed.

- Regarding NRCS programs, it was stated the major agricultural focus is on crop and pasture improvement including soil testing, proper application of fertilizer- nutrient management, grants for improving grass stands, improvement using rotational grazing and cross fencing. The Young Farmers Association had conducted classes with the NRCS. Several tours had been done of demonstration projects over past 3-4 years.
- Sampling and water quality monitoring that had listed these streams were discussed as was feasibility of further sampling. It was stated that communities have the burden of proof to delist the stream. It was asked what the cost of sampling for fecal coliform would be. It was replied that if the analyst already has a laboratory, if supplies and set-up already exist, the cost would be $15 per sample, including labor. If not, the cost would be higher, around $45 to $60. Summerville and Trion have certified labs for water quality testing. It was mentioned that the City of Rome has run thousands of water quality tests and found much variability in levels of fecal coliform. The presence of wildlife, deer, geese, or cows, etc. in the water influences the count since one dropping contains millions of fecal coliform bacteria. Sampling after a rain also yields high counts.

- It was stated that the tributaries to these streams might have houses with septic systems along them. How to separate septic from agricultural and wildlife sources? If homeowners are on public water system, the outflow goes into septic system, not county sewer. Initial permitting for septic systems but no mechanism for those in trouble. Stakeholders remarked on infrared flyovers done by TVA, others to determine presence of failed or leaking systems. Regulations have been resisted as far as required maintenance.

- It was asked what point is this process at, whether to make recommendations or to continue gathering information.
- Stakeholders mentioned 319 h grants for proposed projects, stating that the process is at the brainstorming stage to think of possible outreach or implementation activities.
- Stakeholders asked about impaired segments, how these segments were determined to be impaired upstream of a point but not downstream.

- It was replied that just because a stream is not on the list, or a segment is not included, does not mean it is not impaired.
- It was stated that points at which segments begin and end may have to do with monitor locations.
- It was stated that the contractor would investigate use of the Summerville lab for water quality testing.
- A stakeholder replied that water sampling looks at total coliform while wastewater sampling looks at fecal coliform and that if fecal coliform is the testing issue, then that needs to be made clear to the water quality labs.

Meeting Summary, Floyd County TMDL Implementation Plan Advisory Group, February 21, 2006

Stakeholders introduced themselves. Leigh Ross, Rome-Floyd County Water and Sewer, Sheri Teems, NRCS, Jarrell Cagle, Farm Bureau Floyd County, Eric Lindbergh, Rome-Floyd County Environmental Services, John Bagwell, Farm Bureau and Bagwell Farms, Jill Joss, Coosa Valley RDC, and Julie Meadows, Coosa Valley RDC, were present.

- Draft TMDL Implementation Plans involving Floyd County, including Silver Creek, HUC 10 0315010416; Coosa-Beech Creek, HUC-10 0315010501; Big Cedar Creek, HUC10 0315010502; Armuchee Creek, HUC10 0315010305; and Oostanaula River, HUC10 0315010306 were reviewed.

- Recommended measures for septic system maintenance education and outreach were discussed.

- Education and outreach is a priority as well as required septic maintenance.

- The point was made that if the system backs up, maintenance is needed and education and outreach may not be effective. Most homeowners will not pay a thousand dollars to have septic system pumped out until it is in need of repair. It was stated that there is variability in a managed septic system and that it might fit a large lot development that was not concentrated enough for sewer, so the development could keep its rural quality. Newer septic systems are not the issue, but older. Newer systems were regulated and had to be on soil that passed a percolation test. However older systems or straight pipes were not regulated. There are approximately 17,000 septic systems in the county with three-fourths of those older than 1990. Stakeholders stated that the issue of septic systems needs to be faced with current development issues.

- The 319-funded grant project through Limestone Valley Resource Conservation and Development Corporation, Inc. to repair or replace older septic systems was mentioned. Rolling Hills RC&D may be interested in pursuing such a project, as they have a good working relationship with the Limestone Valley RC&D. The RDC will meet with EPD after the March 31st submission deadline to discuss funding of specific projects if a 40-60% cost share can be funded.

- Recommended measures for riparian buffer education and outreach were discussed.

- Buffers in the Unified Land Development Code include 100 feet on the rivers, 40 feet on the tributary, and 25 feet on tertiary streams and are enforced. The source water assessment plan includes 150 foot buffers and should apply to Armuchee Creek. For older developments, buildings are grandfathered in, but if new structures are built the buffers are again required.

- A stakeholder asked about the City of Rome's tree nursery, which applies wastewater to irrigate the nursery and provide water treatment. Tree planting could be incorporated into increasing buffers along streams. Encouraging buffers will require education and outreach for businesses, developers, to work in situations where there are no requirements.

- Possibility of incentives for developers was discussed, such as the possibility of opting out of the stormwater utility tax if buffers were left along the property, and if percentage of impervious surface was low. It would be a great incentive for developers etc if the stormwater utility tax could be waived. It was stated that different types of developments can encourage riparian buffers, depending on lot sizes, cluster development, and the use of septic field lines as possible greenspace. It is a balancing act. Education and outreach are important.

- Clarification was requested on comments received on the draft plans.

- Potential sources in Armuchee were discussed including the discrepancy between the field survey results and the stakeholders' statements, was agreed to change the listing for potential impact of the stream. The Farm Service Agency had provided disaster relief in the Armuchee Creek area. In this area EPD had challenged the listing of "small" for fecal contribution from agriculture in the area and was asking possibility of estimating cattle head counts. Agreed that there is a lot of unlimited access still, although NRCS has done a lot of work in Armuchee; it was the first EQIP watershed in the state, and developed rotational and prescribed grazing systems. There are still a few big operations with access to the stream. Agriculture would not be considered a 'large" source of impairment. Reminded that 79.9% of watershed is forest. Stakeholders agreed that contribution from agriculture sources could be considered moderate, with the mention of the area as a 319 grant projects priority area which entitles direct funding to the area.

- Discussed eligibility for EQIP in these areas.

- Considering stormwater management measures for education and outreach, the group discussed the recommended measures including showing the After the Storm video on local access channels and the library channel, as well as the DVD developed by Environmental Health to inform homeowners of the necessity of maintaining septic systems.

- A specific plan for education and outreach will be developed by June 30th and will include implementation by stakeholders, including local governments and the Coosa Valley RDC.

The **Bartow County Stakeholder Advisory Group (BCSAG)** was formed in January 2005 for the purpose of establishing and directing stream water quality monitoring and outreach efforts to address nonpoint source pollution. Stakeholders in this group, representing Bartow County, Cities of Cartersville and Euharlee, and government agencies, have worked together previously on watershed assessment and source water assessment plans as well as other environmental and water quality efforts.

This group met in January 2006 to review the draft TMDL Implementation Plans for watersheds in the county and to discuss monitoring and outreach efforts. Two subcommittees were formed: One to review stream monitoring data for these watersheds and to implement additional monitoring as needed; and the second to begin septic system maintenance outreach to homeowners.

Stakeholder Advisory Group Comments- January 31, 2006

Stakeholders introduced themselves; those present included Gene Camp, Bartow County Water Department, Pam Robinson, Bartow County Health Department, Steve Bradley, Bartow County Administrator, Lamont Kiser, Bartow County Engineer, Cindy Haygood, Rolling Hills RC&D, Curt Gervich, Etowah Habitat Conservation Plan, Edmund L. Mullinax, City of Cartersville, Kathy Floyd, Bartow County Extension Service, Katie Knowles and Jim Shinall, USACE, and Jim Stafford, City of Cartersville, and Bobby Gay, City of Euharlee Code Enforcement, were present.

Jill Joss and Julie Meadows, CVRDC, introduced the TMDL Implementation Plan process.

Jill Joss presented a summary of discussion from previous meetings including data, sampling, impairment sources, management measures, input, and concerns of local governments, agriculture, landowners and individuals.

Julie Meadows reviewed management measures in draft TMDL Implementation Plans (TMDLIPs) for Pine Log Creek (HUC-10 0315010207); Oothkalooga Creek (HUC-10 0315010302); Pumpkinvine Creek (HUC-10 0315010411); Raccoon Creek (HUC-10 0315010412); Etowah River (HUC-10 0315010413); Euharlee Creek (HUC-10 0315010414); Etowah River/Two Run Creek (HUC-10 0315010415); and Silver Creek (HUC-10 0315010416).

Stakeholders suggested comments and additions to the management measures as follows:

Stakeholders asked that the Etowah Habitat Conservation Plan language be included in management measures with applicable ordinances for participating jurisdictions. Suggested that sewer expansion might not be the way to go, suggesting improvements to septic systems instead.

It was stated that the Poultry Waste Management Program district does not extend to Bartow County, and asked that the Continuous Conservation Reserve Program be included as it includes measures such as fencing livestock out of streams and provides up to a 90-10% cost-share, as well as the Conservation Reserve Program which includes erosion control measures.

It was stated that the County's new Notice of Intent had been approved by the EPD and over 30 BMPs for stormwater management should be included. It was clarified that land disturbing permits are obtained through the County.
It was clarified that the Greenspace Committee has purchased several greenspace lots and recommended that those acquisitions be included, as well as striking percentages from language that described Committee efforts. Negotiations are ongoing for further greenspace.

Sewer systems were discussed further: Lot size and configuration were listed as problematic, encouragement of dense enough development to warrant water and sewer was mentioned.

It was stated that Bartow County had been the first to implement a DVD education outreach program for new septic system owners in 2004 and it was now statewide. The Health Department can only check systems if there are complaints, which are sometimes received from landowners or from surveys done by the COE at Lake Allatoona. New regulations for septic system installation recently introduced.

How to get the information out to those getting new permits? A possibility might include getting the word out through water utilities, sending out information to those not on sewer.

It was stated that there is no mandatory update or management of septic systems; that there should be additional public education.

Suggestions were made that the State be more proactive to establish regulations for septic systems at the State level. Education on maintenance of systems is key. Resale of homes with septic systems is also an issue.

Sheri Henshaw, director of Keep Bartow Beautiful, was unable to be present but had sent information about outreach programs that Keep Bartow Beautiful is coordinating. These programs are detailed in the outreach section of the TMDL Implementation Plans for watersheds in Bartow County and include the following projects: Etowah River Cleanup; Environmental education including Teacher Training for Waste In Place, Project WET (Water Education for Teachers); Enviroscape (illustrates non-point source pollution in the classroom using tabletop model); Stormwater education in schools; Development of a speaker's bureau to present stormwater issues to civic groups; and Adopt-A-Stream. Proposed projects include a homeowner's workshop on maintaining septic tanks, including the topics "Different Functions of Septic Tanks; How They Should Function; Common Causes of Failure; Maintenance For Longevity; Potential Contaminants in the Effluent; and Site Limitations"; a workshop on rain gardens for stormwater catchment, and cooperative development of a demonstration rain garden at Red Top Mountain State Park with signage.

A grant program was mentioned in rural Kentucky through PRIDE (Personal Responsibility in a Desirable Environment) for low-income homeowners to connect to existing sewer or install a permitted septic system; a possibility of a similar pilot project in this area.

Sampling was discussed. Previous and current sampling sites (EPD, USGS) were reviewed. Future or ongoing sampling was discussed especially for the tributary to Petit Creek segment and the Euharlee. Previous sampling data for all watersheds were requested for further study.

It was remarked that errors in data may have caused pristine streams may have been listed in error.

Funding sources were discussed by all. Information on EPD's 319 h grant requirements for 2006-2007 will be announced in early February and relayed to stakeholders.
The Northwest Georgia Water Resources Partnership was introduced for regional water planning purposes.

A subcommittee was formed to review sampling data, including:

- Steve Bradley, Bartow County Administrator
- Ed Mullinax, City of Cartersville
- Gene Camp, Bartow County Water Department
- Sheri Henshaw, Keep Bartow Beautiful
- Katie Knowles, USCOE Allatoona Dam
- Jill Joss, Coosa Valley RDC

A subcommittee was formed to plan septic system outreach, including:

- Gene Camp, Bartow County Water Department

- Bobby Gay, City of Euharlee Zoning and Code Enforcement
- Pam Robinson, Bartow County Environmental Health
- Kathy Floyd, Bartow County Extension Service
- Cindy Haygood, Rolling Hills RC&D
- Jim Shinall and Katie Knowles, USCOE Allatoona Dam
- Julie Meadows, Coosa Valley RDC

The meeting was adjourned.

List the watershed or advisory committee members of the stakeholder group for this segment in the following table.

Table 4. COMMITTEE MEMBERS

NAME/ORG	ADDRESS	CITY	STATE	ZIP	PHONE	E-MAIL
Curt Gervich Etowah Habitat Conservation Program	P.O. Box 287	Acworth	GA	30503	(678) 801-4013	curt@etowahhcp.org
Joe Cook Executive Director, or Katie Owens Program Coordinator Coosa River Basin Initiative	408 Broad St.	Rome	GA	30161	(706) 767-0497	crbi@coosa.org keady@coosa.org
Sheri Teems, Conservation Agent, Natural Resources Conservation Service	1401 Dean Street	Rome	GA	30161	(706) 291-5651	Sheri.teems@ga.usda.gov
Cindy Haygood, Coordinator Rolling Hills Regional Conservation and Development Council	P.O. Box 1550	Dallas	GA	30132	(770) 505-4288	Cindy.Haygood@ga.usda.gov
Keith Gilmer or John Loughridge, Georgia Soil and Water Conservation Commission	700 East 2nd Ave. Suite J	Rome	GA	30161	(706) 295-6131	K_gilmer@gaswcc.org J_loughridge@gaswcc.org
Commissioner Jerry Jennings Floyd County Board of Commissioners	8006 Blacks Bluff Road SW	Cave Springs	GA	30124	(770) 290-2665	jjennings@berry.edu
Irwin Bagwell Bagwell Dairy	100 Bagwell Rd	Cave Spring	GA	30124	(706) 777-8474	bagwe@bellsouth.net
Leigh Ross, Director Rome-Floyd County Water Department		Rome	GA		(706)236-4560	wsd@romega.us
Eric Lindbergh, Director Rome-Floyd County Environmental Services	607 Broad Street, P.O. Box 1433	Rome	GA	30162-1433	(706) 236-4674	elindbergh@romega.us
Steve Bradley County Administrator	135 West Cherokee Avenue Suite 241	Cartersville	GA	30120	(770) 387-5030	Bradleys@bartowga.org
Lamont Kiser Bartow County Engineer	135 West Cherokee Avenue Suite 241	Cartersville	GA	30120	(770) 387-5067	kiserl@bartowga.org
Tammy Decker USDA Rural Development	12 Felton Place	Cartersville	GA	30120	(770) 386-3393	Tammy.decker@ga.usda.gov
Sherri Henshaw, Coordinator, Keep Bartow Beautiful	P.O. Box786	Cartersville	GA	30120	(770) 387-5167 Fax: 770.606.2382	henshaws@bartowga.org
Edmund L. Mullinax, City of Cartersville	P.O. Box 1390	Cartersville	GA	30120	(770) 607-6296	emullinax@cityofcartersville.org
Gene Camp	P.O. Box 850	Cartersville	GA	30120	(770) 387-5170	campg@bartowga.org

Bartow County Water System						
Kathy Floyd County Extension Agent	320 W. Cherokee Ave. Room 112	Cartersville	GA	30120	(770) 387- 5142	Kpfloyd@uga.edu

In Appendix A, list the names, addresses, telephone numbers, and e-mail addresses for local governments, agricultural or commercial forestry organizations, significant landholders, businesses and industries, and local organizations including environmental groups and individuals with a major interest in this watershed.

VI. MANAGEMENT MEASURES AND ACTIVITIES

Describe any management measures or activities that have been put into place or will be put into place including regulatory or voluntary actions or other controls by governments or individuals that specifically apply to the pollutant that will help achieve water quality standards. Include who will be responsible for the measure, how it will be funded, the status, the date it will be or was initiated, and a short description of how effective the measure is or will be.

Table 5. MANAGEMENT MEASURES AND ACTIVITIES

GENERAL MEASURES APPLICABLE TO ALL PARAMETERS

MEASURE	RESPONSIBILITY	DESCRIPTION	SOURCE OF FUNDING	STATUS	ENACTED/ IMPLEMENTED	EFFECTIVENESS (Very, Moderate, Weak)
Federal Clean Water Act, Section 305(b) and 303 (d) Amended 1977	USEPA, Georgia DNR EPD, Bartow County,	The congressional objective of the Clean Water Act "is to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." Section 305 (the *National Water Quality Inventory*) requires states to report progress in restoring impaired waters to EPA on a Biennial basis. Section 303(d) requires states to identify 'impaired' waters, submit a list to EPA every two years, and develop TMDLs for these waters	Federal, Georgia	Enforced	1972; amended 1977	
Georgia Water Quality Control Act (OCGA 12-5-20)	Georgia Rules and Regulations for Water Quality Control, Chapter 391-3-6	Law prohibiting discharge of excessive pollutants (sediments, nutrients, pesticides, animal wastes, etc.) into waters of the State in amounts harmful to public health, safety, or welfare, or to animals, birds, or aquatic life or the physical destruction of stream habitats. Law authorizing Georgia EPD to control water pollution, eliminate phosphate detergents, and regulate sludge disposal; to require permits for agricultural ground and surface water withdrawals; to prohibit situation of state waters by land disturbing activities and require undisturbed buffers along state waters; to require land-use plans that include controls to protect drinking water supply sources and wetlands; to require river basin management plans on a rotation schedule for all major river basins.	Federal, Georgia, Bartow County, Floyd County	Enforced	11/1964	
GA Growth Planning Act (OCGA 12-2-8)	GA DNR, Department of Community Affairs, and local units of government.	Authorized GA DNR to develop minimum planning standards and procedures that local jurisdictions could adopt and enforce pertaining to the protection of river corridors, mountaintops, water supply, watersheds/reservoirs, groundwater recharge areas, and wetlands. Silvicultural activities may be exempted form permitting requirements provided the activity complies	State			

		with BMPs.				
Georgia Planning Act. Part V Environmental planning measures. GA DNR EPD Rules for Environmental Planning Criteria (Ch. 391-3-16)	Bartow County, Floyd County	Wetland protection, river corridor protection, etc. Minimum criteria. Requires 100' buffer on protected rivers. Water supply watershed protection also requires 100' stream buffers.	General Fund	Enforced	1989	
Georgia Erosion and Sedimentation Control Act, Construction Permit, 2003 Amendment	Bartow County, Floyd County, Georgia DNR/ EPD, Georgia Soil and Water Conservation Commission	Municipalities certified as Local Issuing Authority for land-disturbing activities. Requires Erosion and Sedimentation Control Plan incorporating best management practices plus "Qualified Personnel" Training and Certification Program adopted from Georgia Soil and Water Conservation Commission. Certification of on-site "Qualified Personnel" to ensure proper design, construction, and maintenance of standard E & S control measures and storm water management practices.	Bartow County, Floyd County	Enforced	2003	
Georgia Erosion and Sedimentation Control Act (OCGA 12-71-1)	Bartow County, Floyd County, Georgia DNR/ EPD, Georgia Soil and Water Conservation Commission	Restricts activity within 50 feet of streams that support or could support trout, and 25 feet of all other streams and lakes. This includes intermittent streams, which do not run year-round, as well as perennial streams	Bartow County, Floyd County Georgia DNR/ EPD	Enforced	2003; EPD rule revised 1/2005	
Municipal Ordinances	Floyd County	2005 Unified Land Development Code of Rome-Floyd County includes the following ordinances: Section 6.13, Erosion and Sedimentation Control including a requirement for E and S Plans by developers; Section 6.14, Flood Damage Prevention (references the Flood Insurance Study of 2000); Section 3.3, Zoning regulations that include Planned Development zoning with a requirement for 20% of land within the residential development to be preserved as open space, excluding recreational space; Section 6.15, Stormwater Management including a stormwater management plan required of developers; Section 6.18 addressing tree planting requirements; and Section 6.19, addressing watershed and wetlands protection, including setback restrictions and greenways, including buffers of 100 feet on river corridors and 40 feet on tributaries including Silver Creek, Armuchee Creek, and Big Cedar Creek.	General Fund	Enforced	2005	
Etowah Habitat Conservation Plan Standard Operating Procedure (SOP) for	US Fish and Wildlife Service, Bartow County	SOP includes six elements: 1. Two required preconstruction meetings- one, an early meeting with the site planner and relevant E&S professionals to identify problem areas before site plans are Finalized, and two, a subsequent meeting with the utilities, engineers, developer, E&S installation crew, and owner to review	Bartow County	In review		

Erosion and Sedimentation Control		where and how E&S control measures will be installed; 2. Semi-monthly reporting requirements; 3. A bonding program; 4. A minimum inspection frequency requirement; 5. A brief E&S checklist for building inspectors; and 6. Designation of emergency on-call E&S personnel from each development. Requires updates to ordinances in participating jurisdictions.				
Construction Storm Water Discharge NPDES Permit	Georgia DNR/ EPD	General storm water permit for stand-alone construction sites; infrastructure permits; and common developments. Requires implementation of Erosion, Sedimentation and Pollution Control Plan plus monitoring of discharge for compliance with Georgia's in-stream water quality standards.	State	Enforced		
Industrial Storm Water Discharge NPDES Permit	Georgia DNR/ EPD	General storm water discharge permit for manufacturing facilities; mining, oil, and gas operations; hazardous waste treatment; storage or disposal facilities; recycling centers; steam electric power generating facilities; transportation facilities; domestic sewage or sewage treatment. Requires implementation of Storm Water Pollution Prevention Program. May require storm water monitoring program targeting discharges into/near 303 (d) listed waters.	State	Enforced		
Notice of Intent coverage of small MS4 under NPDES Phase II general permit	Bartow County	Bartow NOI approved by EPD in 2005. Includes Best Management Practices to reduce non-point source pollution in the county.	Bartow County	Enforced	2005	Very
Notice of Intent coverage of small MS4 under NPDES Phase II general permit	City of Rome- Floyd County	NOI approved by EPD in 2005. Includes Best Management Practices to reduce non-point source pollution in the county such as promoting River Clean-up Days, Sponsoring one River Clean-up per year, Promoting Adopt-A-Stream with certification and recertification, and establishment of 10 certified Adopt-A-Stream work groups.	General Fund	Enforced	2005	Very
Phase II NPDES Storm Water Permit for Small MS4	Georgia DNR & EPD, Bartow County, Rome-Floyd County	Bartow NOI Approved in 2005. Rome-Floyd NOI approved by EPD in 2005. Requires local jurisdictions to develop a comprehensive Storm Water Management Program (SWMP) to include 1. Public Education and Outreach; 2. Public Participation and Involvement; 3. Illicit Discharge Detection and Elimination; 4. Construction Site Storm Water Runoff Control; 5. Post-Construction Storm Water Management in New Development and Redevelopment; 6. Pollution Prevention and Good Housekeeping related to municipal operations, reporting, and monitoring and program implementation. Bartow County is in process of implementing these best management practices.	Bartow County, Rome-Floyd County	Enforced	2005	

Watershed Assessment and Protection Plan for Phase II NPDES Permitting	Bartow County	Required for new or expanding wastewater treatment discharge permits. Internal assessment of storm water pollution prevention plan (map of facilities and responsibilities for upkeep): Reference TMDL implementation plans (TMDLIP) and water quality strategies for non-point source pollution elimination. Drives local land use planning. Georgia EPD guidelines include Management Measures Specific for 303(d) listed stream segments in the impacted watershed. WPP to reference TMDLIP already developed. Where no TMDLIP developed, WPP to outline management/ monitoring measures targeting listing violations; identify authority responsible for implementing the above management/ monitoring measures; indicate possible funding sources; establish current status and/or date measures will be initiates, and expected effectiveness; and design educational and outreach activities for intended audiences.	Bartow County	Enforced	2005	
Sanitary Sewer Maintenance Program	Bartow County, Rome-Floyd County	Sanitary Sewer system inventory and inspection (mapping, television inspections); infiltration and inflow identification and reduction (flow monitoring, smoke testing); sewer line rehabilitation (pipe bursting, relining, cleaning) and manhole rehabilitation.	Bartow County, Rome-Floyd County	Enforced	Ongoing	
District-wide Watershed Management Plan	Georgia DNR/EPD, Metropolitan North Georgia Water Planning District (SB 130), Bartow County	Bartow has adopted five of six Model Storm Water Management Ordinances that address Post Development Storm Water Management for New Development and Redevelopment, Conservation Subdivision/ Open Space Development, Illicit Discharge and Illegal Connection, Litter Control, and Stream Buffer Protection as required by Georgia EPD in MS4 Phase II Permit Renewals. The District Plan also addresses municipal good housekeeping practices to control non-point source pollution; improved enforcement of erosion and sedimentation control; storm water management for transportation projects; and education and public awareness activities.	Bartow County	Enforced	Bartow, 12/2005	
Watershed Protection Tools Addressing Poor Riparian Buffers	Bartow County and stakeholders	Riparian Buffer Ordinance (Stream Buffer Protection Ordinance of 50'); Stream Restoration; Stream Mitigation Bank; Conservation Subdivision Ordinance	Bartow County	Enforced	Compliant with or exceeds Metro N. GA District model ord. 12/07/05	Very if enforced
Watershed Protection Tools Addressing Point Sources	Bartow County and stakeholders	Improved NPDES permits; Enforcement of existing permits	Bartow County	Enforced	Compliant with or exceeds Metro N. GA	Very if enforced

					District model ord. 12/07/05	
Watershed Protection Tools Addressing Impervious Surfaces and Storm Water Runoff	Bartow County and stakeholders	Relevant Storm water Management and Conservation Subdivision Ordinances; Conservation Planning	Bartow County	Enforced	Compliant with or exceeds Metro N. GA District model ord. 12/07/05	Very if enforced
County Municipal Ordinance	Bartow County/ Code Enforcement Office	Post-Development Stormwater Management Ordinance with stream buffer limits; Litter Control Ordinance; Conservation Subdivision ordinance; Riparian Buffer ordinance; Greenspace Ordinance	General fund	On-going	January 2005	Very
Federal Endangered Species Act of 1973	Department of the Interior, US Fish and Wildlife Service	Provides a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved, to provide a program for the conservation of such endangered species and threatened species, and to take such steps as may be appropriate to achieve those purposes	USFWS	Enforced	1973	Very if enforced
Etowah Habitat Conservation Plan Stormwater Ordinance with Better Site Design Guidelines and Addendum: Runoff Limits, Priority Area Protection and Maintenance of Stormwater Facilities	US Fish and Wildlife Service, Bartow County	Additions to Metropolitan North Georgia Water Planning District Model Storm Water Management Ordinance addressing impervious surface runoff including 1. Clarification of bond and fee requirements; 2. Strengthening maintenance and inspection requirements, 3. Encouraging the use of Better Site Design credits, with additional performance standards for high priority habitat areas including section five, Model Runoff Limits Ordinance. This establishes requirements for runoff infiltration system installation and maintenance. Development of Runoff Limits Manual in progress (2006) Engineering Specifications for Structural BMPs. Requires updates to ordinances in participating jurisdictions.	Bartow County	Enforced	Compliant with or exceeds Metro N. GA District SW ord. 12/07/05	
Etowah Habitat Conservation Plan Stream Buffer Ordinance	US Fish and Wildlife Service, Bartow County	For those jurisdictions in the Metropolitan North Georgia Water Planning District, Additions are made to the district's Model Stream Buffer Ordinance addressing granting of variances. Requires updates to ordinances in participating jurisdictions.	Bartow County	Proposed	Compliant with or exceeds Metro N. GA District model ord. 12/07/05	
Etowah Habitat Conservation Plan Conservation Subdivision Ordinance	US Fish and Wildlife Service, Bartow County	For those jurisdictions in the Metropolitan North Georgia Water Planning District, changes made to the district's Model Conservation Subdivision Ordinance include requirement of site map analysis for all developments with open space plans, instruments of permanent	Bartow County		Compliant with or exceeds Metro N. GA District	

		protection, and a four-step design process specified; and changes to primary conservation sites to be included in open space requirements including 100-year floodplain, 75-foot stream buffers, 25%-or-greater slopes, wetlands, endangered species habitats, and archeological sites. Requires updates to ordinances in participating jurisdictions. Places emphasis on protecting stream buffers and significant hydrological features..			model ord. 12/07/05	
Etowah Habitat Conservation Plan Conservation Road Crossing and Culvert Design Guidelines	US Fish and Wildlife Service, Bartow County	Road Crossings Technical Committee is in the process of developing design guidelines for road crossings of stream and stream culverts to alleviate habitat concerns that pipe culverts limit fish movement in stream	Bartow County		In committee	
Etowah Habitat Conservation Plan Conservation Utility Line Crossing and Construction Recommendations	US Fish and Wildlife Service, Bartow County	Utility Crossings Technical Committee is in the process of developing design guidelines for utility stream crossings to reduce sedimentation and other habitat concerns resulting from erosion of land disturbed by utility activities	Bartow County		In committee	
Storm drain stenciling requirement	Bartow County	County ordinance requiring stenciling of storm drains by developers for new housing developments.		Enforced	2004	
Storm drain stenciling	Keep Bartow Beautiful	Volunteers stencil storm water drains in older residential developments		Voluntary	2004	
EPA Section 319 Non-point Source Implementation Grants	Georgia Department of Agriculture/ Georgia Environmental Protection Division for enforcement action	Funds distributed through a competitive process to public agencies, regional development centers, state colleges and universities, and state agencies.	Federal, State		Yearly	Varies with BMP or project
Georgia Best Management Practices	Georgia DNR/EPD	Informs those involved in the agriculture business of effective practices to minimize non-point sources of pollution	Georgia			Varies with BMP
Georgia's Best Management Practices	Georgia Forestry Commission (matters involving enforcement are generally referred to GA EPD)	GFC program to inform landowners, foresters, timber buyers, loggers site preparation and reforestation contractors and others involved with silvicultural operations about commonsense, economical effective practices to minimize nonpoint source and thermal pollution. GFC encourages and monitors compliance and conducts a complaint resolution program.				>75% when properly applied to site preparation and harvesting activities.
Georgia Forestry Commission Monthly BMP Assurance Examination	Georgia Forestry Commission (matters involving enforcement are generally referred to GA EPD)	In an effort to document "reasonable assurance" that water quality will be proactively protected during regular ongoing silvicultural operations, the GCF will offer a monthly BMP assurance examination of active sites. All active of ongoing sites will be identified either through monthly air patrol flights, courthouse records, riding the	Federal and State			

		roads, notification or by landowners. Sites located within watersheds of specific biota (sediment) impaired streams will be given a higher priority to identify and conduct examinations.				
Memo to the Field: Application of BMPs to mechanical silvicultural site preparation activities for the establishment of pine plantations in the Southeast (Silviculture)	EPA/ US Army Corps of Engineers - (cases normally referred to GFC to make initial determination)	Identifies certain bottomland hardwood wetlands that should be subject to permitting if converting to pine plantations.	State			
Federal Farm Bill (Swampbuster, Ag)	US Department of Agriculture Natural Resource Conservation Service	Prohibits landowners participating in federal price support programs from converting forested wetlands to agriculture	Federal			
Partners for Fish and Wildlife	US Fish and Wildlife Services	This is a proactive, voluntary program that works with private landowners to restore fish and wildlife habitats on their land. The projects have several different focuses, but for the purpose of water quality the projects focus on stream and riparian restoration and restoration of rare species habitat.	Federal variable cost share			Effectiveness will vary with the specific application and must be individually determined.
Farm Bill 2002	United States Department of Agriculture / National Resources Conservation Services	Enhances long-term quality of our environment and conservation of our natural resources. This bill provides several opportunities for receiving grants to improve water quality.	Federal Cost-Share and Incentive Programs.			Effectiveness will vary with the specific application and must be individually determined.
Environmental Quality Incentives Program (EQIP)	Natural Resources Conservation Services	Voluntary program that provides technical and cost share assistance for protection of ground and surface water, erosion control, air quality, wildlife habitat, and plant health.	Federal 50% cost share with possible additional incentive payments			Effectiveness will vary with the specific application and must be individually determined.
Special Forestry/Wildlife Environmental Quality Incentives Program (EQIP)	Natural Resources Conservation Services	Special funds allocated out of the EQIP program that will address forest road erosion/water quality, plant health, and wildlife habitat. This program has a separate ranking for rewarding money from the regular EQIP program.	Federal 50% cost share with possible additional incentive payments			Effectiveness will vary with the specific application and must be individually determined.
Wildlife Habitat Incentives Program (WHIP)	Natural Resources Conservation Services	Provides technical and cost share assistance for the creation of high quality wildlife habitat. Habitats of special concern include riparian areas and endangered and threatened species habitat.	Federal 75% of cost of the installation of practice provided			Effectiveness will vary with the specific application and must be

						individually determined.
Wetlands Reserve Program (WRP)	Natural Resources Conservation Services	Provides technical and financial assistance to landowners to enhance degraded wetlands degraded by farming or draining. There are three options with WRP to receive funds that have differing time agreements and easements resulting in different cost share. In all programs participants control access to the land, may lease or use land for hunting, fishing, and other passive recreational activities. Compatible uses are allowed as long as the do not degrade the wetland.	Federal (Farm Bill 2002) Cost Share 1. Permanent Easement :Pays appraised value of land ($2,000/ acre cap) and 100% of costs of restoration. 2. 30-Year Easement: Pays 75% of appraised value of land and 75% of restoration costs. 3. Restoration Cost Share Agreement: Pays 75% of restoration costs, no easement on the property.			Effectiveness will vary with the specific application and must be individually determined.
Chapter 40-13-8 Animal Manure Handlers Rules of Georgia Department of Agriculture Animal Industry Division	Georgia Department of Agriculture	This requires that persons engaged in removing animal manure from livestock/poultry production areas, transporting animal manure on public roadways, or depositing animal manure to a premise other than its point of origin obtain a permit and follow rules to control animal disease, and outlines regulations for transportation, equipment and storage.	State			Effectiveness will vary with the specific application and must be individually determined.
Farm Bill 2002 Forestland Enhancement Program	Georgia Forestry Commission	The Forestry Commission has implemented best management practices on its lands to reduce sedimentation and erosion from silviculture practices. The Georgia Forestry Commission also provides education, technical and financial assistance through cost-share programs to private landowners especially in the Forestland Enhancement Program, a part of the 2002 Farm Bill.	Federal, State		Ongoing	Very
Federal Farm Bill 2002	United States Department of Agriculture/ Natural Resources Conservation Service	Enhances long-term quality of our environment and conservation of our natural resources. This bill provides several opportunities for receiving grants to improve water quality.	Federal Cost-Share and Incentive Programs		2002	Varies with BMP applied.
Federal Farm Bill	United States	Prohibits landowners participating in federal price support	Federal			

(Swampbuster Ag)	Department of Agriculture / National Resources Conservation Services	programs from converting forested wetlands to agriculture.				
Conservation Reserve Program (CRP)	Natural Resources Conservation Services / USDA Farm Services Agency	Provides technical assistance, rental payments and cost share funding to address specific natural resource concerns including: protection if ground and surface waters, soil erosion and wildlife habitat. Eligible practices include tree planting, grassed waterways, wildlife habitat buffers, and shallow water area for wildlife and filter strips.	Federal, State, landowner	Cost-share	Ongoing	Varies
Continuous Conservation Reserve Program (CCRP)	Natural Resources Conservation Service	Conservation cost-share for best management practices such as fencing livestock out of streams; provides up to a 90-10% cost-share	Federal Annual rental payment for land taken out of production and 50% cost share for practice installation.	Cost-share	Ongoing	Varies with BMP applied.
Conservation of Private Grazing Land Program	United States Department of Agriculture / National Resources Conservation Services	This technical assistance will offer opportunities for: better grazing land management; projects for improving water quality include: protecting soil from erosive wind and water; conserving water; providing habitat for wildlife; sustaining forage and grazing plants.	Federal (Farm Bill 2002) This is not a Cost-Share Program.			Varies with BMP applied.
Conservation Security Program (CSP)	Natural Resources Conservation Services	This is the first program that rewards farmers and ranchers for high levels of environmental stewardship. Producers on cropland, orchards, vineyards, pasture and range may apply for CSP regardless of size, type of operation, or crops produced. Land in other cost share programs is not eligible. CSP will first be offered in watersheds with greatest potential for improving water quality, soil quality and grazing land condition, In 2005, the four watersheds of focus will be the Ichawaynochaway, Kinchagoonee-Muckalee, Middle Flint, and Upper Ochlockonee. An enhancement example is to install a riparian buffer,	Federal (Farm Bill 2002) Cost Share There is three tiers of involvement, which result in different expectations and cost share opportunities.			Effectiveness will vary with the specific application and must be individually determined.
Georgia Best Management Practices	Georgia Department of Agriculture / Georgia EPD for enforcement action.	Informs those involved in the agricultural business of effective practices to minimize nonpoint source pollution.	State			Varies with BMP applied.
Section 319(h) Nonpoint Source Implementation Grant	Georgia Environmental Protection Division	Funds distributed through a competitive process to public agencies, regional development centers, State colleges and universities, and State agencies. Eligible projects include TMDL or Watershed Management Plan Implementation, BMP Demonstrations, and Information and Education.	Federal and State Cost Share Program. Recipient must provide 40% match.			Effectiveness will vary with the specific application and must be individually determined.
Environmental	Natural Resources	Voluntary Program that provides technical and cost-	Federal (Farm			

Quality Incentives Program (EQIP)	Conservation Services	share assistance for protection of ground and surface water, erosion control, air quality, wildlife habitat, and plant health	Bill 2002) 50% Cost share with possible additional payments			
Rules and regulations for onsite wastewater management (Septic system permitting)	Bartow County, Floyd County Department of Public Health	Regulates through permits and inspections of on-site sewage management systems; requires plumbers and other maintenance operators to submit monthly logs of pump-outs and maintenance done to systems	Bartow County	Enforced	Ongoing	
Pollution Prevention Litter Removal	Bartow County Solid Waste Director	Remove litter from County roads and properties using labor from State correctional facilities	General Fund	Ongoing	January 2004	Very
Pollution Prevention Good Housekeeping for Municipal Operations	Bartow County	Insure all County facilities submit an NOI for industrial discharges; Assist each facility with development of a Storm Water Pollution Prevention Plan (SWPP); Educate and inspect those facilities	General Fund	Ongoing	December 2004	Very
Volunteer clean up activities	Sherri Henshaw Coordinator, Keep Bartow Beautiful	Volunteers for stream cleanup on River Cleanup Day. Trash cleanup on the Etowah River for this segment at Riverside Park	General Fund		October 31, 2005	Very
Stormwater Best Management Practices	Bartow, Floyd Counties	Continue to implement recommended Best Management Practices to address Biota (Sediment)/ Habitat and other pollutants as detailed in Bartow County's NOI Phase II MS4 Stormwater Management Plan to include 1. Public Education and Outreach; 2. Public Participation and Involvement; 3. Illicit Discharge Detection and Elimination; 4. Construction Site Storm Water Runoff Control; 5. Post-Construction Storm Water Management in New Development and Redevelopment; 6. Pollution Prevention and Good Housekeeping related to municipal operations, reporting, monitoring and program implementation	General Fund	Recommended 2006		May vary
Stream Buffer Installation and Maintenance Incentives	Bartow, Floyd Counties	Explore incentives for developers (such as density variances) who meet or exceed stream buffer requirements in developments who agree to maintain buffers for specified period; similar incentives for homeowners		Recommended 2006		May vary
District-wide Septic System Maintenance	Bartow, Floyd Counties Environmental Health, Northwest Georgia Health District	Expand ongoing education and outreach to promote proper maintenance of private septic systems using DVD program	Homeowners with existing septic systems	Recommended 2006		
Adopt-A-Stream	In conjunction with Coosa River Basin Initiative (CRBI)	Water quality chemical and biological volunteer training and monitoring, stream clean-up, stream bank and habitat restoration, and visual stream surveys	Volunteer	Ongoing		Moderate- Cannot test for fecal coliform

MEASURES APPLICABLE TO INDIVIDUAL PARAMETERS

PARA-METER 1	MEASURE	RESPONSIBILITY	DESCRIPTION	SOURCE OF FUNDING	STATUS	ENACTED/ IMPLEMENT-ED	EFFECTIVENESS (Very, Moderate, Weak)
Habitat, Sediment	Get the Dirt Out	Coosa River Basin Initiative (CRBI)	Volunteer training program for construction site inspection, identification of failure to use BMPs in construction activities	CRBI is funded by donations, grants from foundations, membership	Ongoing	Begun in March 2005	Very
Habitat, Sediment	Adopt-A-Stream, in conjunction with CRBI	Coosa River Basin Initiative	Water quality chemical and biological volunteer training and monitoring, stream clean-up, stream bank and habitat restoration, visual stream surveys	CRBI is funded by donations, grants from foundations, membership	Ongoing		Moderate
Habitat/ Sediment	Georgia Better Back Roads	Rolling Hills RC&D	Program that funds projects where sealant treatment applied to dirt roads reduces erosion and silt build-up.	USDA NRCS	Proposed		Very
Habitat/ Sediment	Streambank Restoration	Rome-Floyd County, Coosa River Basin Initiative, the Georgia Conservancy, and Southeast Waters/ Americorps	Streambank restoration project on city property along Silver Creek.				
Habitat/ Sediment	Volunteer clean up activities	Sherri Henshaw Coordinator, Keep Bartow Beautiful	Volunteers for stream cleanup on River Cleanup Day. Trash cleanup on the Etowah River at Riverside Park	General Fund		October 31, 2005	Very
Habitat/ Sediment	Stream Buffer Installation and Maintenance Incentives	Bartow, Floyd Counties	Explore incentives for developers (such as density variances) who meet or exceed stream buffer requirements in developments who agree to maintain buffers for specified period; similar incentives for homeowners		Recommended 2006		May vary

MEASURES APPLICABLE TO INDIVIDUAL PARAMETERS

PARA-METER 2	MEASURE	RESPONSIBILITY	DESCRIPTION	SOURCE OF FUNDING	STATUS	ENACTED/ IMPLE MENTED	EFFEC T-IVENES S (Very, Moderat e, Weak)
Fecal Coliform	Rules and regulations for onsite wastewater management (Septic system permitting)	Rome-Floyd County, Bartow County Department of Public Health	Regulates through permits and inspections of on-site sewage management systems; requires plumbers and other maintenance operators to submit monthly logs of pump-outs and maintenance done to systems	General Fund	Enforced	Ongoing	
FC	Sanitary Sewer Maintenance Program	Rome-Floyd County, Bartow County	Sanitary Sewer system inventory and inspection (mapping, television inspections); infiltration and inflow identification and reduction (flow monitoring, smoke testing); sewer line rehabilitation (pipe bursting, relining, cleaning) and manhole rehabilitation.	General Fund	Enforced	Ongoing	
FC	District-wide Septic System Maintenance	Bartow, Floyd Counties Environmental Health, Northwest Georgia Health District	Expand ongoing education and outreach to promote proper maintenance of private septic systems using DVD program	District funds	Homeowners with existing septic systems	Recommend ed 2006	
FC	Acquisition and Preservation of Riparian Buffers	Bartow County Greenspace Committee	Committee will buy land along Etowah River and plant or allow lands to return to original usage	SPLOST			Varies with extent of purchas es
FC	Pollution Prevention Litter Removal	Bartow County Solid Waste Director	Remove litter from County roads and properties using labor from State correctional facilities	General Fund	Ongoing	January 2004	Very

VII. MONITORING PLAN

The purposes of monitoring are to obtain more data, to determine the sources of pollution, to describe baseline conditions, and to evaluate the effects of management and activities on water quality. Describe any sampling activities or other surveys - active, planned or proposed - and their intended purpose. Reference the development and submission of a Sample Quality and Assurance Plan (SQAP) if monitoring for delisting purposes.

Table 6. MONITORING PLAN

PARAMETER (S) TO BE MONITORED	ORGANIZATION	STATUS (CURRENT, PROPOSED, PLANNED)	TIME FRAME		PURPOSE (If for delisting, date of SQAP submission)
			START	END	
Fecal Coliform	EPD, USGS	Current	Every 5 years		Ongoing monitoring for listing, delisting of impaired streams
Fecal Coliform	Bartow County	Current	Ongoing		Inclusion of TMDL impairments in Bartow County's Long-Term Monitoring Plan
Fecal coliform bacterial levels	Coosa River Basin Initiative	Current	Ongoing		If citizen complaint is received, CRBI works with City of Rome to test stream.
Fecal Coliform at NPDES sites	Coosa River Basin Initiative	Current	Ongoing		CRBI monitors renewals of NPDES permits for 26 municipalities, recording spills and discharges
Fecal Coliform bacteria levels	Coosa River Basin Initiative with Adopt-A-Stream	Current	Ongoing		CRBI works with Adopt-A-Stream to host Chemical Water Monitoring Classes and to certify volunteer water monitors
Chlorophyll A; Continuous Water Quality Monitoring; Water Quality Sampling (BOD, DO, Temp, TKN, NH_3, NO_2-NO_3, total P, ortho-phosphate, TOC, conductivity, and Ph); and Specialized studies (EPD).	EPD, USGS	Current	2005-2006		Coosa River Basin Modeling study

VIII. PLANNED OUTREACH FOR IMPLEMENTATION

List and describe outreach activities, which will be conducted to support this plan and the implementation of it.

Table 7. PLANNED OUTREACH

RESPONSIBILTY	DESCRIPTION	AUDIENCE	DATE
Sherri Henshaw Coordinator, Keep Bartow Beautiful	Volunteers for stream cleanup on River Cleanup Day. Trash cleanup on the Etowah River for this segment at Riverside Park	Volunteers, teenagers from local schools, Keep Bartow Beautiful, Bartow 4-H Club, Mountain District EPD office, Lake Allatoona Corps of Engineers	October 31, 2005
Provide septic system maintenance outreach to Bartow County residents	Bartow County Septic System Outreach Subcommittee	Proposed 1/31/06	
Ken Akins Site Manager Etowah Indian Mounds	Education on historical water quality, river uses, clean-up of Etowah River as part of tour of Etowah Indian Mounds	Approximately 17,000 students per year from area schools	Ongoing, mostly in fall and spring school terms
Bartow Co. Director of Planning and Zoning	Comprehensive stormwater awareness training program	Bartow County Homeowner's Association	Ongoing since July 2004
Sherri Henshaw Coordinator, Keep Bartow Beautiful	Teacher Training for Waste In Place, Project WET (Water Education for Teachers "to facilitate and promote awareness, appreciation, knowledge, and stewardship of water resources," Enviroscape (illustrates non-point source pollution in the classroom using tabletop model)	Teachers, students in grades K-12	Ongoing
Sherri Henshaw Coordinator, Keep Bartow Beautiful	Volunteer storm drain stenciling	Community	Ongoing
Sherri Henshaw Coordinator, Keep Bartow Beautiful	Stormwater-related presentation materials provided to schools	Elementary and Middle schools	Yearly since October 2004
Sherri Henshaw Coordinator, Keep Bartow Beautiful	Develop a speakers' bureau to provide outreach on storm water issues	Local civic groups	Ongoing since July 2004
Bartow County Staff	Develop mechanism to improve "interjurisdictional cooperation on TMDL and Watershed Improvement issues"	City of Cartersville, Paulding County, and Polk County	Proposed
Kathy Floyd Bartow County Extension Agent	Articles on water quality written for local newspaper, ongoing outreach on water quality issues	Bartow 4-H Club, citizens	Ongoing
Rolling Hills Resource Conservation and Development Council	Envirothon, a yearly district and state competition for high school students testing skills and knowledge of aquatics including water quality, and other environmental topics	High School Students	March 2006
Adopt-A-Stream, in conjunction with Coosa River Basin Initiative (CRBI)	Water quality chemical and biological volunteer training and monitoring, stream clean-up, stream bank and habitat restoration, and visual stream surveys	Individuals, families, school groups, civic clubs, and businesses	Ongoing
Bartow County Board of Tax Assessors	Implement tax relief program for property owners who place conservation easements on all or part of properties, especially for greenspace on Timber lands	Property owners especially those with large timber holdings	Proposed
Bartow Co. Director of Planning and Zoning	Comprehensive stormwater awareness training program	Bartow County Homeowner's Association	Ongoing since July 2004
Janice Granai	Demonstration rain garden at Red Top Mountain State Park	Homeowners, Community	Ongoing

Park Naturalist, Red Top Mountain State Park	with signage.		
Pam Robinson Bartow County Environmental Health	Septic system outreach and education to homeowners using DVDs- has become statewide model for such education	Homeowners	2004
Director of Engineering, Bartow County	Mapping of stormwater drainage outfall areas through out the county. 100% of the county will be mapped in 2006	EPD compliance, MS4 Permit	2006
CRBI	The Coosa River Basin Initiative conducts non-point source pollution education programs for elementary school students in Floyd County through a grant from Temple-Inland. As well, Get the Dirt Out is another project which provides volunteer training for construction site inspection and identification of failure to use BMPs in construction activities. The project was implemented in March 2005 and covers the Northwest Georgia area of the Coosa River Basin.	Elementary school students	Ongoing
Keep Bartow Beautiful Coordinator, Allatoona Community Association	Workshop on proper maintenance of septic systems	Allatoona Community Association homeowners	2006
	Stormwater Management Education and Outreach		
Bartow County, Rome- Floyd County	• Complete Center for Watershed Protection's Codes and Ordinances Worksheet	General Public	2006
Bartow County, Rome- Floyd County	• Consider Adopting 22 Model Development Principles as discussed in Better Site Design: A Handbook for Changing Development Rules in Your Community where applicable	General Public	2007-2008
Bartow County, Rome- Floyd County	• Implement education of community using After the Storm non-point source pollution video presentation on public access channels	General Public	Ongoing
Coosa Valley RDC, stakeholders	• Reconvene Stormwater Working Group to include all counties, municipalities in Coosa Valley RDC area	All counties, municipalities in Coosa Valley RDC area	2006
Coosa Valley RDC, stakeholders	• Will investigate 319 h non-point source pollution grant possibilities regarding funding for development of stormwater management training for municipal employees	All counties, municipalities in Coosa Valley RDC area	2006
	Riparian Buffer Education and Outreach		
Bartow County, Rome- Floyd County	• Consider adopting relevant principles as detailed in 22 Model Development Principles as discussed in Better Site Design: A Handbook for Changing Development Rules in Your Community	General Public	2007-2008
USDA NRCS/FSA, County	• Continue education and outreach to local communities	General Public, Homeowners	Ongoing

Extension Service Coosa Valley RDC, stakeholders	through USDA NRCS/FSA, County Extension Service • Will investigate 319 h non-point source pollution grant possibilities regarding purchasing and distribution of education materials encouraging homeowners to develop, maintain riparian buffers	Homeowners	2006
Coosa Valley RDC, stakeholders	**Investigate Funding Sources** • Will investigate 319 grant possibilities regarding development of a project to survey schools in Coosa Valley RDC service area to determine interest in and feasibility of water quality education, specifically on causes of non-point source pollution, importance of riparian buffers, and stormwater pollution prevention	General Public	2006

IX. MILESTONES/ MEASURES OF PROGESS OF BMPs AND OUTREACH

This table will be used to **track and report progress of management measures including BMPs and outreach**. Record milestone dates for:
- Accomplishment of management practices or activities - outreach activities
- Installation of Bumps

To attain water quality standards. Comment on the effectiveness of the management measure, how much support the measure was given by the community, what was learned, how the measure might be improved in the future, and any other observations made. This table can be "pulled out" of this template and used to report and track progress.

Table 8. MILESTONES

MANAGEMENT MEASURE	RESPONSIBLE ORGANIZATIONS	STATUS PROPOSED	INSTALLED	COMMENT
Acquire lands along Etowah River for greenspace and riparian buffer preservation in County	Bartow County Greenspace Committee	2000- present		Several land purchases have been acquired along the Etowah and throughout the county; others are under consideration.
Acquire lands along Silver Creek in City of Rome	City of Rome- Floyd County	2002	2002	Rome-Floyd County owns most of the land along Silver Creek inside the city limits from East 12th Street to Silver Creek's confluence with the Etowah River. Although the city would like to expand the greenspace and riparian areas on Silver Creek, presently there are no funds allocated for this purpose.
Maintain Adopt-a-Stream monitoring sites along Silver Creek	City of Rome-Floyd County			One active site, one inactive, one done by CRBI
Provide septic system maintenance outreach to Bartow County residents	Bartow County Septic System Outreach Subcommittee	Proposed 1/31/06		Will determine best contact and outreach methods. Several possibilities including mass mailing, or developing a student internship
Stormwater education	Bartow County	Proposed 12/05		Through Keep Bartow Beautiful, Stormwater Management, will educate children and homeowners through presentations and website
Components of Bartow County's NPDES Phase II Stormwater Management Plan: Public Education and Outreach • School System Stormwater Presentations • E & S Training Workshop • Speaker's Bureau • Stormwater Educational Materials • Stormwater Web Page • Newspaper Articles	 Keep Bartow Beautiful Coord. Bartow County Dir. Engineering Keep Bartow Beautiful Coord. Bartow County Dir. Engineering County Engineer/ IT Director Bartow County Extension Agent	 2004 2004 2004 2005 2005 2005	 2004-2006 2004 Ongoing 2006 2006 2006	
Components of Bartow County's NPDES Phase II Stormwater Management Plan: Public Participation and Involvement				

• Storm Drain Stenciling	Keep Bartow Beautiful Coord.	2003	2004	
• River Clean-up	Keep Bartow Beautiful Coord.	2004	2007	
Components of Bartow County's NPDES Phase II Stormwater Management Plan: Illicit Discharge Detection and Elimination				
• Storm Sewer Map	Bartow County	2004	2004-2006	
• Ordinance/Regulatory Mech. Evaluation	Bartow County	2004	2005	
• Illicit Discharge Detection/Elimination Ordinance	Bartow County Engineer	2005	2005	
• Industry Database	Bartow County Engineer	2005	2006-2009	
• Dry Weather Screening	Bartow County Engineer	2005	2008	
• Source Tracing/Removal Proced.	Bartow County Engineer	2005	2006	
Components of Bartow County's NPDES Phase II Stormwater Management Plan: Construction Site Storm Water Runoff Control				
• Ordinance Evaluation	Bartow County Engineer	2004	2006	
• Litter Control Ordinance	Bartow County Engineer	2005	2006	
• Development Plan Review	Bartow County Engineer	2005	2006	
• Stormwater Quality Site Inspections	Bartow County Engineer/Inspection	2005	2006	
• Stormwater Quality Violation Plan	Bartow County Engineer/Inspection	2005	2006	
• Erosion & Sedimentation Certification	Bartow County Engineer	2005	2006	
• Citizen Complaint Hotline	Code Enforcement/ County Engineer	2005	2006	
Components of Bartow County's NPDES Phase II Stormwater Management Plan: Post-Construction Storm Water Management in New Development and Redevelopment				
• Ordinance Evaluation	Bartow County Engineer	2004	2005	
• Stormwater Management Ordinance	Bartow County Engineer	2005	2005	
• Conservation Subdivision Ordinance	Bartow County Engineer	2005	2005-2006	
• Adoption of Stormwater Design Manual	Bartow County Engineer	2003	2003-2006	
• Countywide Watershed Assessment	Director- Water & Sewer	2005	2006-2010	
• BMP Mapping	County Engineer	2005	2005-2006	
• Stormwater Management Facility Inspection & Maintenance Program	Road Dept. Director/ County Engineer	2005	2005	
• New Stormwater Management Facility Water Quality Assessment	County Engineer	2005	2005	
Components of Bartow County's NPDES Phase II Stormwater Management Plan: Pollution Prevention and Good Housekeeping	Bartow County			
• County Fleet Maintenance Fluids Recycling	Solid Waste Director	2004	2004-2006	
• Employee Hazardous Materials Training	County Administrator/ Director, Water & Sewer	2004	2004-2008	
• Roadside Cleanup	Solid Waste Director	2004	2005	
• Evaluation, Implementation of	Director, Water & Sewer	2005	2006	

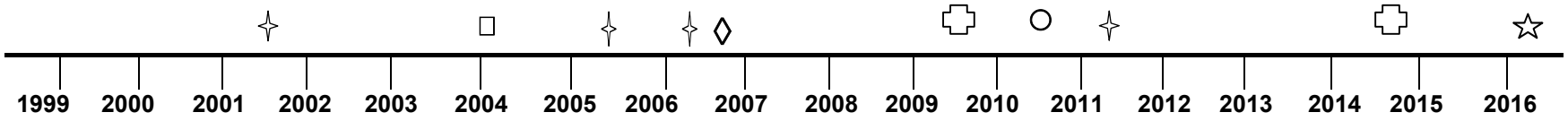
Stormwater Pollution Prevention Plans for County Facilities • Bring One for The Chipper • Collection Centers • Existing Pond Water Quality Assessment • Vacuum and Jet Clean Storm Structures • Illegal Dumping Control	 Keep Bartow Beautiful Coordinator Solid Waste Director Road Dept. Director/ County Engineer Road Dept. Director/ Stormwater Superintendent of O & M Solid Waste Director	 2005 2004 2005 2005 2005	 2005 2004 2005-2007 2005-2008 2006	
Acquire lands along Etowah River for greenspace and riparian buffer preservation in County	Bartow County Greenspace Committee	2004	2004	
Workshop on proper maintenance of septic systems for Allatoona Community Association homeowners	Keep Bartow Beautiful Coordinator	2006	2006	
Metro North Georgia Water Planning District Model Storm Water Management Ordinances: Post Development Storm Water Management for New Development and Redevelopment	Bartow County	2005	2005	
Metro North Georgia Water Planning District Model Storm Water Management Ordinances: Conservation Subdivision/ Open Space Development	Bartow County	2005	2005	
Metro North Georgia Water Planning District Model Storm Water Management Ordinances: Illicit Discharge and Illegal Connection Ordinance	Bartow County	2005	2005	
Metro North Georgia Water Planning District Model Storm Water Management Ordinances: Litter Control Ordinance	Bartow County	2005	2005	
Metro North Georgia Water Planning District Model Storm Water Management Ordinances: Stream Buffer Protection Ordinance	Bartow County	2005	2005	
Stormwater Management Education and Outreach • Complete Center for Watershed Protection's Codes and Ordinances Worksheet • Consider Adopting 22 Model Development Principles as discussed in Better Site Design: A Handbook for Changing Development Rules in Your Community where applicable	 Bartow County, Rome- Floyd County Bartow County, Rome- Floyd County	 Summer 2006 2007-2008		

• Implement education of community using After the Storm non-point source pollution video presentation on public access channels	Bartow County, Rome- Floyd County	Ongoing		
• Reconvene Stormwater Working Group to include all counties, municipalities in Coosa Valley RDC area	Coosa Valley RDC, stakeholders	2006		
• Will investigate 319 h non-point source pollution grant possibilities regarding funding for development of stormwater management training for municipal employees	Coosa Valley RDC, stakeholders	2006		Application deadline May 31, 2006. Yearly deadline.
Septic System Maintenance Education and Outreach				
• Investigate expansion of district-wide outreach component to homeowners to include those with existing systems	Coosa Valley RDC, stakeholders	2006		
• Will investigate 319 h non-point source pollution grant possibilities regarding septic system maintenance and repair project	Coosa Valley RDC, stakeholders	2006		Application deadline May 31, 2006. Yearly deadline.
Riparian Buffer Education and Outreach				
• Consider adopting relevant principles as detailed in 22 Model Development Principles as discussed in Better Site Design: A Handbook for Changing Development Rules in Your Community	Bartow County, Rome- Floyd County	2007-2008		
• Continue education and outreach to local communities through USDA NRCS/FSA, County Extension Service	USDA NRCS/FSA, County Extension Service	Ongoing		
• Will investigate 319 h non-point source pollution grant possibilities regarding purchasing and distribution of education materials encouraging homeowners to develop, maintain riparian buffers	Coosa Valley RDC, stakeholders	2006		Application deadline May 31, 2006. Yearly deadline.
Investigate Funding Sources • Will investigate 319 grant possibilities regarding development of a project to survey schools in Coosa Valley RDC	Coosa Valley RDC, stakeholders	2006		Application deadline May 31, 2006. Yearly deadline.

service area to determine interest in and feasibility of water quality education, specifically on causes of non-point source pollution, importance of riparian buffers, and stormwater pollution prevention				

PROJECTED ATTAINMENT DATE

The projected date to attain and maintain water quality standards in this watershed is 10 years from acceptance of the TMDL Implementation Plan by Georgia EPD.



Scheduled EPD Basin Group Monitoring ✧
TMDL Completed □
Revised TMDL Implementation Plan Accepted ◊
Plan Status Evaluation Report ✚
Plan Update or Revision, if Necessary ○
Project Attainment for Plans Prepared in 2006 ☆

Prepared By:	**Julianne Meadows**
Agency:	**Coosa Valley Regional Development Center**
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City:	**Rome** **ST: GA** **ZIP: 30162**
E-mail:	**jmeadows@cvrdc.org**
Date Submitted to EPD: 04/22/06	**Revision: 01**

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amended.

APPENDIX A.
STAKEHOLDERS

List the names, addresses, telephone numbers, and e-mail addresses for local governments, agricultural or commercial forestry organizations, significant landholders, businesses and industries, and local organizations including environmental groups and individuals with a major interest in this watershed.

NAME/ORG	ADDRESS	CITY	STATE	ZIP	PHONE	E-MAIL
Joe Cook, Executive Director, or Katie Owens, Program Coordinator, Coosa River Basin Initiative	408 Broad St.	Rome	GA	30161	(706) 767-0497	crbi@coosa.org keady@coosa.org
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Cindy Haygood, Coordinator Rolling Hills Regional Conservation and Development Council	P.O. Box 1550	Dallas	GA	30132	(770) 505-4288	Cindy.Haygood@ga.usda.gov
Keith Gilmer or John Loughridge Georgia Soil and Water Conservation Commission	700 East 2nd Ave. Suite J	Rome	GA	30161	(706) 295-6131	K_gilmer@gaswcc.org J_loughridge@gaswcc.org
Commissioner Jerry Jennings Floyd County Board of Commissioners	8006 Blacks Bluff Road SW	Cave Springs	GA	30124	(770) 290-2665	jjennings@berry.edu
Irwin Bagwell Bagwell Dairy	100 Bagwell Rd	Cave Spring	GA	30124	(706) 777-8474	bagwe@bellsouth.net
Leigh Ross, Director Rome-Floyd County Water Department		Rome	GA		(706) 236-4560	wsd@romega.us
Eric Lindbergh, Director Rome-Floyd County Environmental Services	607 Broad Street, P.O. Box 1433	Rome	GA	30162-1433	(706) 236-4674	elindbergh@romega.us
Steve Bradley County Administrator	135 West Cherokee Avenue Suite 241	Cartersville	GA	30120	(770) 387-5030	Bradleys@bartowga.org
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Tammy Decker USDA Rural Development	12 Felton Place	Cartersville	GA	30120	(770) 386-3393	Tammy.decker@ga.usda.gov
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APPENDIX B.

UPDATES TO THIS PLAN

Describe any updates made to this plan. Include the date, section or table updated, and a summary of what was changed and why.

APPENDIX C.

0135010416 Silver Creek Field Survey Photographs and Watershed Map

Field Survey Photographs

1. 0135010416 Silver Creek (Floyd County) Bethel Church Rd and Southern Railway crossing: Stream accessible to wildlife.

2. 0135010416 Silver Creek (Floyd County) Brice Station and Burkhalter Rd: Stream accessible to wildlife.

3. 0135010416 Dykes Creek- Wayside Rd: Creek drains agricultural work area.

4. 0135010416 Dykes Creek- Blue Pond Church on Wade Mountain Rd: Tributary drains pasture, 1 of 2.

5. 0135010416 Dykes Creek- Blue Pond Church on Wade Mountain Rd: Tributary drains pasture, 2 of 2.

6. 0315010416 Spring Creek Upstream of listed segment: Pleasant Valley Road at Unity Baptist Church- Possible beaver activity upstream partially blocks stream.

7. 0315010416 Spring Creek: Wax Rd Upstream of listed 2 mile segment- Accessibility of stream to wildlife.

8. 0315010416 Spring Creek: Abrams Rd Upstream of listed 2 mile segment- drains pastures.

9. 3010510416 Silver Creek US Hwy 411 to Coosa River: Riverside Drive, Silt fencing and stormwater conveyance seen.

10. 3010510416 Silver Creek US Hwy 411 to Coosa River: Veterans Parkway Bridge river is accessible to wildlife.

0135010416 Silver Creek

Watershed Map